

The legal issues of webcasting

A Research Report

presented to

The Law Faculty

University of Cape Town

in partial fulfilment

of the requirements for the

Masters of Law Degree

by

Franziska Uhlmann

October 2005

Supervisor: Professor Julien Hofman

A. Abstract

The digital era progresses and changes our daily media landscape rapidly. At present, we are experiencing a broad transformation from analogue to digital media. However, this will not be the last step. The future of media is not only digital but located in the Internet. The convergence of traditional media and Internet is occurring steadily as the former races to establish an online presence.

In the case of radio, the ability to broadcast over the web has opened up new avenues. Web radio was established in 1993. It allows users to access radio over the Internet and to receive a higher quality audio. A future challenge will be Internet TV and therefore traditional TV over cable, satellite and antenna will face increasing competition. One of the reasons webcasting has become more popular is that you do not have to wait for a programme to download before watching it. You can receive audio or video live. The Internet becomes a real-time, live broadcast system.

The result is that a host of important legal issues have arisen around webcasting. This paper will deal with the legal aspects and issues of webcasting. In the first part, I will examine webcasting itself and will differentiate it from other similar forms of data transfer etc. Next, I will describe the technology behind webcasting, which is relevant to copyright issues. The central part of this paper will outline the legal issues surrounding webcasting and discuss possible solutions. I will also look at different countries and their legislation around broadcasting system to analyze whether it is sufficient to deal with webcasting.

B. The object

I. Definitions

1. Webcasting

The term webcasting is used inconsistently in two different ways, so clarification is necessary at the outset.

Webcasting refers primarily to the use of the Internet to broadcast live or delayed audio and/or video (data) transmissions.¹ It is therefore referred to as broadcasting on the Internet. The content corresponds to traditional television and radio broadcasts, and only the form of transmission is different.

The following examples illustrate the typical uses of webcasting: a university may offer online courses in which a live or pre-recorded lecture is shown. A news channel may offer certain news programmes on its website. It has also become popular for companies to webcast conferences in place of or in addition to a conference call.

In order to view a webcast, users need to have the appropriate multimedia applications. I will provide more information in this regard later on in the part about Technology.

A second use of the term webcasting refers to the use of push technology in order to send web-based content to recipients.² It is then mostly referred to as data broadcasting, datacasting or netcasting (see the description below for more information).

¹ <http://www.pcwebopedia.com/TERM/W/Webcast.html> viewed on 27 June 2005

² http://searchwebservices.techtarget.com/sDefinition/0,,sid26_gci213345,00.html viewed on 28 June 2005

I will use webcasting in accordance with the first meaning given. The term Internet broadcasting or streaming media may be more appropriate.

2. Datacasting

Webcasting has to be differentiated from similar forms of data transfer and distribution over the Internet, i.e. from datacasting, podcasting and peercasting.

Datacasting is also called data broadcasting or netcasting. Datacasting means broadcasting data over a wide area via radio waves or sending supplemental information along with digital television (by television stations).³ Datacasting may also be applied to digital signals on analogue TV or radio.⁴ The data is mostly web-based content such as sports news, weather, traffic, stock quotes etc. The data may also be interactive, such as gaming, shopping, or education.⁵

Datacasting uses so-called *push technology*, as opposed to ‘pull’, which is what we do when we access a website,⁶ i.e. we are ‘pulling’ or requesting information. The World Wide Web is a pull communication model. With push, in contrast, information is automatically sent to us. E-mail, for example, is a push technique that people use to send information to other people. In the case of spam information will be sent even without the recipient asking for it.⁷ As users cannot interact with the web server, data broadcasting is a transmit-only model.

What distinguishes data broadcasting is that it does not use the Internet as its delivery platform. There are different standards used. For analogue TV for

³ <http://en.wikipedia.org/wiki/Datacasting> viewed on 28 June 2005

⁴ <http://en.wikipedia.org/wiki/Datacasting> viewed on 28 June 2005

⁵ <http://en.wikipedia.org/wiki/Datacasting> viewed on 28 June 2005

⁶ <http://www.linktionary.com/w/webcasting.html> viewed on 28 June 2005

⁷ www.linktionary.com/w/webcasting.html viewed on 27 June 2005

instance, a server broadcasts data over the VBI⁸ portion of the television signal. The VBI is normally used for closed captioning (CC), which allows deaf and hearing-impaired people or people learning English as an additional language to read a transcript of the audio portion of a video, film, or other presentation.⁹ As the video plays, text captions are displayed that transcribe, although not always verbatim, what is said and by whom and indicate other relevant sounds.¹⁰ The term "closed" means that not all viewers see the captions, but only those who decode or activate them.¹¹ That is how one can imagine TV programmes being broadcasted via VBI. It is transmitted "invisibly" within the TV signal over the broadcasting stations. All you need is a special device to receive such transmissions.

3. Podcasting

Another form of data transmission is so-called '*Podcasting*', which attained popularity in 2004. It is a method of publishing sound files to the Internet, allowing users to subscribe to a feed and receive new audio files and updates remotely and automatically.¹² Podcasts can also include metadata such as dates, titles, and descriptions (of the song).¹³ This is made possible by the use of "podcatching" or "aggregator" software, which periodically checks for new content (updates) and downloads it¹⁴, once users connect to the Internet from their computer.

⁸ VBI means vertical blanking interval.

⁹ http://en.wikipedia.org/wiki/Closed_captioning viewed on 27 June 2005

¹⁰ http://en.wikipedia.org/wiki/Closed_captioning viewed on 27 June 2005

¹¹ http://en.wikipedia.org/wiki/Closed_captioning viewed on 27 June 2005

¹² <http://en.wikipedia.org/wiki/Podcast> viewed on 23 June 2005

¹³ <http://en.wikipedia.org/wiki/Podcasting> viewed on 23 June 2005

¹⁴ <http://en.wikipedia.org/wiki/Podcasting> viewed on 23 June 2005

The software will then synchronise the content to the user's portable music player such as the Apple's "iPod".¹⁵ However, podcasting does not require an iPod. Any digital audio player or computer with the appropriate software can play podcasts.

The main difference to webcasting is that with podcasting, people will download content on to their computers and access it from there offline, whereas with webcasting people will typically access the content directly from a website. Podcasting also only relates to audio content whereas webcasting can be either audio or video or both.

4. Peercasting

Peercasting is a method of multicasting streams, usually audio and/or video, to the Internet via a special, so-called peer-to-peer technology.¹⁶ Peer to peer (P2P) means that the interacting computers are equal, and peers automatically relay a stream to other peers upon request. The P2P network (such as Kazaa¹⁷, Morpheus, eMule, eDonkey2000, Bittorrent)¹⁸ helps peers to find a relay (transmission) for a specified stream to connect to. The P2P technology is confronted with the problem that relays are disconnected and peers need to switch to a different relay. However, the big advantage of the P2P technology is that data is stored at the personal computers not at central servers. By that, a high distribution of data is achieved and over- of servers is avoided. The newest P2P networks even work without servers at all, as the exchange completely passes over P2P connections.

The main difference to webcasting is that the audio and video files are located at computers of individuals and not on a web server. The Internet serves only as the platform for the exchange and as transmitter.

¹⁵ <http://en.wikipedia.org/wiki/Podcasting> viewed on 23 June 2005

¹⁶ <http://en.wikipedia.org/wiki/Peercasting> viewed on 29 June 2005

¹⁷ www.kazaa.com

¹⁸ Napster is not a P2P network anymore, but a legal on-demand music service. www.napster.com

5. Digital Audio Broadcasting (DAB) and Digital Television (DTV)

The term digital audio broadcasting (DAB) is a developing technology for broadcasting audio programming in the digital format.¹⁹ Digital radio is one appearance of DAB. It describes radio technologies, which carry information (radio content) as a digital signal.²⁰ Digital radio brings with it a higher quality of sound and new services compared to the original analogue format AM (amplitude modulation) and FM (frequency modulation).

Digital television (DTV) uses digital modulation and compression to broadcast video, audio and data signals to television sets.²¹

Digital broadcasting does not differ from webcasting in the type of transmission, since webcasting content is also transmitted in digital form. Rather, the difference is the means of transmission. Digital radio or television is transmitted either through cable or satellite. In 2003, the MABB²² in Germany introduced digital reception through aerial, as well. One can use a radio card to hear DAB through a personal computer.

The United Kingdom is the leader in terms of digital radio. Experimental transmissions by the BBC started in 1995. The digital radio network now reaches about 80% of the population. Most commercial national radio stations also broadcast on DAB, as do many local stations.

¹⁹ http://en.wikipedia.org/wiki/Digital_audio_broadcasting viewed on 29 June 2005

²⁰ http://en.wikipedia.org/wiki/Digital_radio viewed on 4 July 2005

²¹ http://en.wikipedia.org/wiki/Digital_television viewed on 4 July 2005

²² Medienanstalt Berlin-Brandenburg (Media institution of Berlin and Brandenburg)

The advantages of DTV are basically that it is able to carry more channels in the same amount of bandwidth and that it offers a high definition programming.²³

The digital signal eliminates common analogue broadcasting artefacts such as "ghosting", "snow" and static noises in audio.²⁴

II. Forms of webcasting

In order to analyze the legal issues relating to webcasting it is necessary to approach the forms that webcasting takes on the Internet.

1. Web radio

The predominant form of webcasting at present is radio webcasting in the form of web radio, also called Internet radio. This explains why the term webcasting sometimes is defined as referring to the streaming of audio in the Internet only. It is the most advanced and widespread form of webcasting. Web radio was first introduced in 1993.²⁵

Web radio is a broadcasting service which is transmitted via the Internet.²⁶ Some web radio broadcasts correspond with their traditional ("terrestrial") counterparts²⁷ such as www.bbc.co.uk and www.virginradio.co.uk. Other web radio stations have no connection with traditional radio stations and broadcast only on the Internet. These are mostly hobby or community web radios. Web radio content includes both live or on-demand programmes. On-demand web radio allows users to choose specific songs or artists.

A list of available web radios can be found at www.radio-locator.com

²³ http://en.wikipedia.org/wiki/Digital_television viewed on 4 July 2005

²⁴ http://en.wikipedia.org/wiki/Digital_television viewed on 4 July 2005

²⁵ http://en.wikipedia.org/wiki/Web_radio viewed on 29 June 2005

²⁶ http://en.wikipedia.org/wiki/Web_radio viewed on 29 June 2005

²⁷ http://en.wikipedia.org/wiki/Web_radio viewed on 29 June 2005

Because the radio signal is transmitted over the Internet through the World Wide Web, it is possible to access the stations from anywhere in the world.²⁸ There is no geographic limitation as there is with traditional radio. That means a person in South Africa can listen to a German radio station and vice versa. This makes it a popular service for expatriates and for people who have interests that may not be adequately catered for by their local radio stations.²⁹

Because there is no limit to broadcast spectrum as there is with traditional radio, Internet radio provides listeners with many more listening choices as it offers a wider spectrum of broadcast genres. More, as wireless technology continues to develop, so too will the reach and ease of Internet radio, as Internet broadcasts will soon reach car radios and cell phones.³⁰

Many web radios provide interactive web services, which allow users to have input in the selection of music received over the web. The consumer can choose songs from a given list. By choosing certain songs, the consumer has a certain degree over the programming. Interactivity of webcasting is a huge advantage in comparison with traditional television.

2. Web TV

It has also become common for television content to be broadcasted over the Internet. Reasons for this are partly faster Internet connections and lower connection costs, but also the possibility of reaching a broader public. Especially in terms of news channels there is the big opportunity of providing news either live or as video stream. This can be seen at www.cnn.com or www.n-tv.de or www.bbc.co.uk.

²⁸ http://en.wikipedia.org/wiki/Web_radio viewed on 29 June 2005

²⁹ http://en.wikipedia.org/wiki/Internet_radio viewed on 4 July 2005

³⁰ <http://www.unc.edu/courses/2004spring/law/357c/001/projects/mallos/webcast/Radio.htm> viewed on 7 October 2005

As the reception of traditional TV depends on the signal or satellite one has in the different countries, the big advantage for news webcasting is that people are able to receive video news information all over the world. Another advantage is that such Internet broadcasts are mostly free whereas cable or satellite reception requires fees.

However, it has to be said that so far web TV has not yet presented much of a challenge to traditional TV. There are only a few TV channels that have made their full TV programme available in the Internet. The German news channel n-tv has made its full TV programme simultaneously available on the Internet with exception of the sports news because of legal issues.³¹

One of the main barriers to wider adoption so far is streaming technology, both the quality and the costs to the providers. Another reason might be the fact that full TV webcasting would avoid existing broadcasting law. I will examine this point later on.

Television broadcasters differ in the content they offer:

a. Rebroadcast TV content

Several existing terrestrial TV stations offer content of their programming on websites in the form of simulated live broadcasts or broadcast available as video on demand.³² TV channels generally do not simulcast or broadcast their entire programme, but only parts of their programmes are available as streams, such as the Chinese CCTV and the BBC. The German news channel n-tv does simulcast its entire programme, but with the exception of sport news due to contractual restrictions.³³ Live webcasting is also offered by the

³¹ look at www.n-tv.de

³² www.cnn.com; www.n-tv.de; www.ard.de

³³ www.n-tv.de

Germany's International Broadcaster Deutsche Welle.³⁴ CNN offers on-demand videos in different fields of interests at www.cnn.com/video. These programmes are mostly free of charge. BBC offers apart from web radio also live and on-demand video webcasting at www.bbc.co.uk. The German socio-political magazine "*Spiegel*" offers video news on demand on its website www.spiegel.de/sptv/videonews/.

(Live) Broadcasting of feature films is uncommon. Instead, there is popular demand for on-demand films that are downloaded on to the consumer's PC. These are partly offered by traditional TV channels or different companies. For instance, *Movielink* is a pay-per-view movie webcasting service supported by five of the seven major motion picture companies.³⁵ Further examples include: www.cinemanow.com and www.t-online.de which offer movies on demand in high quality and full screen format.

Movie webcasting is a newly available technology in which entire motion pictures may be downloaded from the Internet and viewed on a personal computer.³⁶

JumpTV is a subscription-based television webcasting service that broadcasts live shows from countries spanning the globe.

www.jumptv.com

www.movielink.com

Movielink is a pay-per-view movie webcasting service supported by five of the seven major motion picture companies.

b. Exclusive webcast content

³⁴ www.dw-world.de

³⁵ www.movielink.com

³⁶ www.unc.edu/courses/2004spring/law/357c/001/projects/mallos/webcast/Movies.htm viewed on 29 June 2005

Broadcasting content is also made exclusively for websites and will not be transmitted on the corresponding TV channel. Examples

c. Net-only webcasts

Finally, there are TV channels which only exist on the Internet. Mania TV is one of those Internet-only TV station.³⁷

A list of available Internet TV channels can be found at www.webtvlist.com.

3. Other video broadcasts

Video broadcasting in the Internet relates to a variety of different fields, such as business, education, entertainment, movies, music, politics, shopping, sport, travel etc. Such broadcasts can be both live and delayed (on-demand).

a. Video conferencing

One form of live video broadcast is videoconferencing. A videoconference (also known as a *video teleconference*) is a meeting among persons where both telephony and closed circuit television technologies are utilized simultaneously. Videoconference communication is multi-way and synchronous, thereby simulating the situation of all parties being present in the same room.³⁸

³⁷ www.maniatv.com

³⁸ http://en.wikipedia.org/wiki/Video_teleconference viewed on 29 June 2005

Videoconferencing is used mainly by companies offering live broadcasting of press conferences, major events, shareholder meetings etc. The broadcasts are mostly made available on the companies' websites. Videoconferencing is also used for educational purposes. Most of these live broadcasts will also be available afterwards as on-demand video broadcasts.

Some international organizations offer webcasting of major events and for training purposes such as the WTO.³⁹

b. Party politics and parliamentary TV

Webcasting has been used in 2004 by the Democratic National Convention in Boston to give thousands of potential voters the chance to interact with and ask questions of politicians, convention delegates, and media personalities.⁴⁰

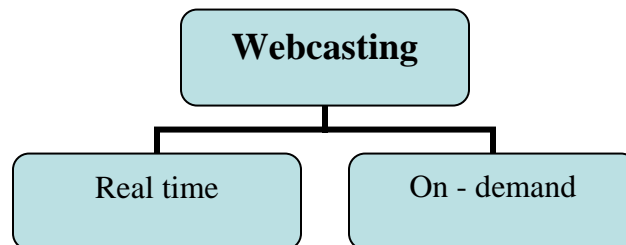
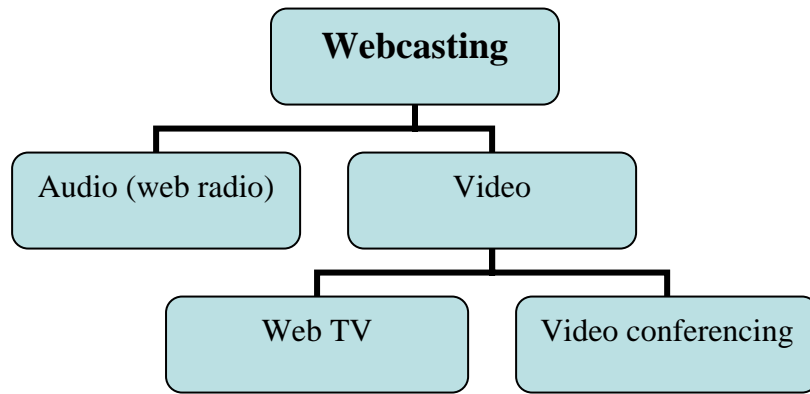
Another form is the live broadcasting of parliamentary sessions and debates which is common in many countries, such as Germany, France, United Kingdom, and United States etc.⁴¹

³⁹ http://www.wto.org/english/res_e/webcas_e/webcas_e.htm viewed on 29 June 2005

⁴⁰ <http://en.wikipedia.org/wiki/Webcasting> viewed on 29 June 2005

⁴¹ Examples: www.bundestag.de/parlament/plenargeschehen/tv/index.htm (Germany), www.parliamentlive.tv/ (United Kingdom – Live from Westminster), www.assemblee-nationale.fr/ (France).

4. Overview



III. The technology

In the following I will present the basics of technology of web radio and web TV. A basic knowledge of the workings of both web radio and web TV work is necessary in order to analyze the legal issues and risks.

The technology behind webcasting is streaming audio and video. Streaming is the real-time transmission of audio and/ or video from a source (server) via a computer network to many, or point-to-point, for immediate performance.⁴² Streaming uses the Real-time Transport Protocol (RTP) over the User Datagram Protocol (UDP).

1. Web radio technology

There are different technologies for streaming web radios. One of the most common ways to dispense web radio is via streaming MP3 technology. Such technology uses the well-known MP3 music format. The (data) bits are "streamed" over an Internet (TCP/IP⁴³) connection, reassembled (at the receiver) and then played. The entire process causes a time lag of about 2 seconds.⁴⁴

Streaming media, as form of delivering audio over the Internet has to be distinguished from *downloads*. In downloads, an audio file is stored on the user's computer in a certain audio file format. The most prevalent form of such audio downloads are compressed formats like MP3. Whereas, streaming audio is not stored on the user's computer, but only played. It is a continuous broadcast.

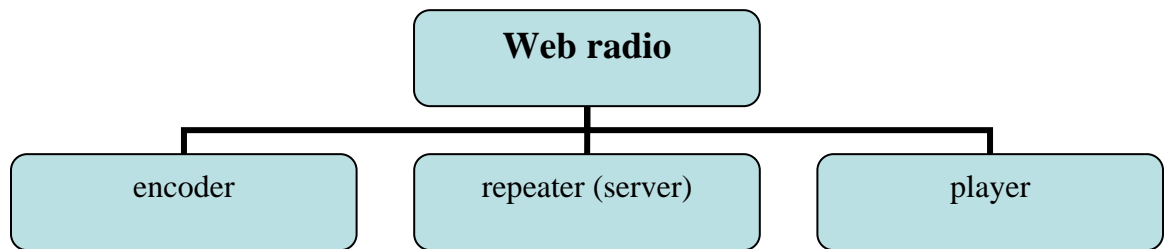
⁴² <http://www.linktionary.com/w/webcasting.html> viewed on 10 July 2005

⁴³ TCP/IP (Transmission Control Protocol/Internet Protocol) is the basic communication language or protocol of the Internet. <http://www.ecommerce-dictionary.com/t/tcp-ip.html> viewed on 5 August 2005

⁴⁴ http://en.wikipedia.org/wiki/Web_radio

The streaming process consists of three major components by which it works: the audio stream source (encoder), the repeater (server) and the player.⁴⁵

The encoder converts audio content into a streaming format, the server makes it available over the Internet and the player recalls the content.⁴⁶ Pre-recorded (on-demand) material is prepared for streaming using the encoder, and will then be stored on the streaming server like a Web page or other downloadable file.⁴⁷ For a live broadcast, both encoder and server work together in real-time.⁴⁸ An audio feed runs to the sound card of a computer running the encoder software at the broadcast location and the stream is uploaded to the streaming server.⁴⁹



a. Audio stream source (encoder)

Audio streams can be created in different ways. An easy, technologically uncomplicated way is to use a certain web service, such as Live365.⁵⁰ Audio content will be put in MP3 and mp3PRO formats⁵¹ within minutes. A delivery of

⁴⁵ <http://computer.howstuffworks.com/internet-radio2.htm> viewed on 10 July 2005

⁴⁶ <http://wdvl.internet.com/Multimedia/WebRadio/tech.html>

⁴⁷ <http://wdvl.internet.com/Multimedia/WebRadio/tech.html>

⁴⁸ <http://wdvl.internet.com/Multimedia/WebRadio/tech.html>

⁴⁹ <http://wdvl.internet.com/Multimedia/WebRadio/tech.html>

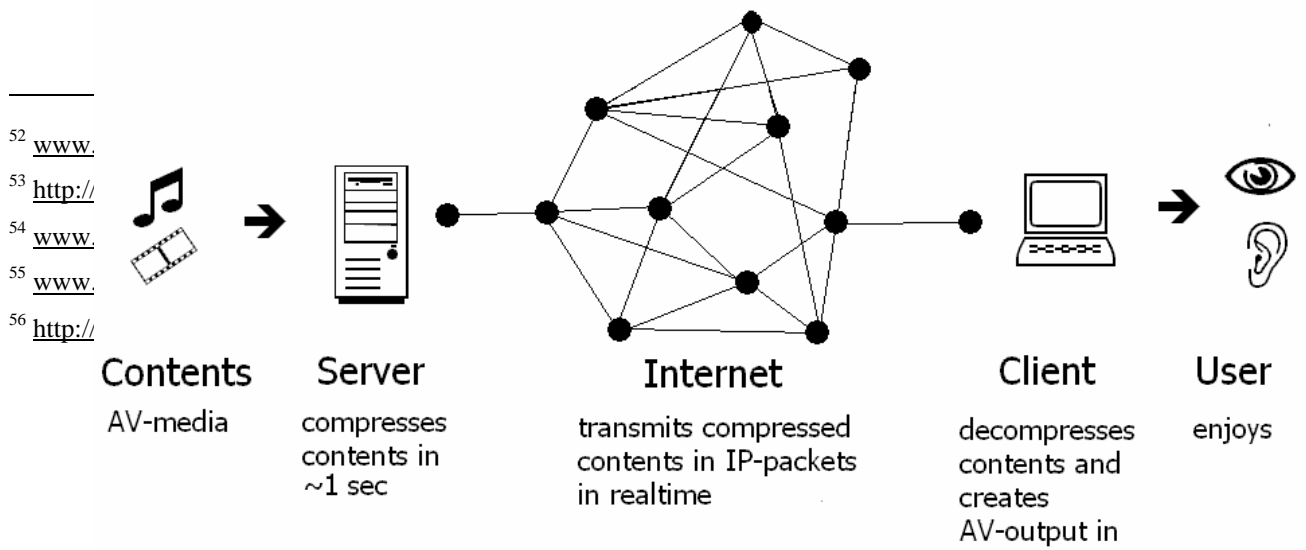
⁵⁰ www.live365.com

⁵¹ The mp3PRO format is an audio compression algorithm that combines the MP3 audio format with spectral band replication compression methods. It claims to achieve transparency at lower bitrates than MP3. <http://en.wikipedia.org/wiki/Mp3PRO> viewed on 10 July 2005

MP3 audio at higher bit rates and therefore with higher quality will be achieved by using for example the freeware audio streaming technology of SHOUTcast service.⁵² SHOUTcast uses MP3 encoding of audio content and HTTP as the transport protocol to broadcast web radio.⁵³ With the SHOUTcast software users are able to set up radio servers for their own needs.

b. Audio stream repeater (server)

Once the stream has been composed you will have to put it on to a server or network. Two of the most popular web radio networks are Live365⁵⁴ and SHOUTcast⁵⁵. These web radio servers list thousands of Internet radio stations which cover an increasing diversity of music genres. The purpose of the server is to repeat the stream source to the audio playback software.⁵⁶



Once the stream is located at a server, it is accessible to Internet users. Those will need some kind of audio playback software or hardware that is capable of reading HTTP data streams. Some popular MP3 players are Winamp for Microsoft Windows, iTunes for Macintosh and Microsoft Windows, and XMMS on UNIX/Linux.

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d. Possibility of recording?

From the legal point of view it is of interest whether such audio streaming (as well as video streaming) can be technically recorded, as recording would be a form of duplication in terms of Copyright Law.

Normally, recording is not directly possible at the web sites that offer streams. However, the recording of audio (and video) streaming is, of course, possible by means of special software. Examples are the Replay Music by Applian Technologies⁵⁷ and No23 Recorder⁵⁸. A list of all streaming audio recording/ripping software is to be found at <http://all-streaming-media.com/record-audio-stream/all-streaming-audio-recording-software.htm>. These programmes will record anything that one can hear through computer speakers no matter whether a certain web radio etc. is in the Windows Media-, RealAudio-, MP3-, or any other format. In which format the streams will be saved on the hard drive depends on

⁵⁷ <http://www.applian.com/replay-music/>

⁵⁸ <http://www.no23.de>

the programme. Mostly a direct recording is possible in the space-saving MP3-Format.⁵⁹ Additionally, such software may be automatically tagged with the artist, song title, album and genre. Often it is offered to burn songs directly to CDs, or to copy them to iPods or MP3 Players.

Above all, recording software offers a high-recording quality. This enables an all-purpose application of the files without compromises which is a huge advantage to conventional forms of recording (i.e. tape). Many analogue media lose quality with each copy generation and even during normal use.



It is to note that, for instance, Replay Music⁶⁰ has direct links websites which offer streaming music such as Napster⁶¹, Musicmatch⁶², and accuRadio⁶³.

Recording of video streaming is also possible. Examples are the WM Recorder (to record Windows Media™ streaming video and audio content) and RM Recorder⁶⁴

⁵⁹ <http://www.radiosites.de/aufnehmen.shtml> viewed on 28 June 2005

⁶⁰ <http://www.replay-video.com/replay-music/index.php?src=all-streaming-media.com> viewed on 13 October 2005

⁶¹ www.napster.com

⁶² www.musicmatch.com

⁶³ <http://www.accuradio.com/>

(to record Real™ video streams and audio content). The WM Recorder is also able to record password-protected videos.



e. How to protect streaming audio (and video) against recording

Broadcasters may be especially concerned that copies will result in lost sales. Whether users have the ability to record streams is of particular interest.

In principle, there is no way to prevent a user from recording a video/audio stream that has been delivered to their computer.⁶⁴ Direct recording software and, in case of video streams, screen capturing software, will allow recording *most* of the streams. The only way for broadcasters to prevent such recording is to make it more inconvenient and strictly illegal by means of copyright, patents, and licence agreements.

aa. Digital Rights Management technology

One way to protect streaming media content is to implement *Digital Rights Management (DRM) technology*. DRM is an umbrella terms referring to any of several methods used to control or restrict the use of digital media content on

⁶⁴ <http://www.applian.com/wmr/index.php?src=all-streaming-media.com>

⁶⁵ <http://all-streaming-media.com/streaming-media-faq/faq-protect-streaming-video.htm> viewed on 13 October 2005

electronic devices with such technologies installed.⁶⁶ Protection is mostly provided by DRM codes attached to digital works that indicate, “may not be copied”. “Digital rights” are not legal rights but actually technical capabilities. DRM was created with view to the availability of multiple perfect copies of copyrighted materials, which is a threat to its viability and profitability, particular within the music and movie industries.⁶⁷ To date, all DRM systems have failed to prevent criminal copyright infringement by organized, unlicensed and commercial pirates.⁶⁸

One such interesting DRM technology is *digital watermarking*. Hidden data such as a unique disc ID number will be placed on the media. At the location of sale the name and address of the purchaser is taken and saved along with the media ID. Digital watermarking does not prevent copying, but it ensures that any copies made of the original media will have the same hidden information. This helps to identify where the media comes from on P2P networks, for instance.

DRM technology does not include the possibility to remove the copy control systems once the copyright of the works expires and the works enter the public domain.

bb. Other measures

There are also other measures in order to protect digital media content. However, the effectiveness of all such measures will depend on the user and his/her technical knowledge and experience in this regard.

⁶⁶ http://en.wikipedia.org/wiki/Digital_Right_Management viewed on 13 October 2005

⁶⁷ http://en.wikipedia.org/wiki/Digital_Right_Management viewed on 13 October 2005

⁶⁸ http://en.wikipedia.org/wiki/Digital_Right_Management viewed on 13 October 2005

For instance, one way is to use unpublished data formats and transport protocols or to encrypt the stream.⁶⁹ Some streams like Quick Time video (for RTSP protocol) or Nullsoft Video Streams cannot be recorded by current streaming media recording software.⁷⁰ However, as data formats and transport protocols can be reverse engineered and encrypted streams must be decrypted with a key that resides on the user's computer, the most popular formats and protocols not yet supported will probably be supported by the next generation of software.⁷¹ Other measures include making streams password-protected or hiding metafiles⁷² by using JavaScript, Flash, ActiveX, etc.

Another way is to use embedded players with right click disabled.⁷³ This will prevent users from opening streams in a regular player and getting stream URLs easily, but experienced users can overcome this measure by using packet sniffer software.⁷⁴ Further, cookies should be used because the majority of stream recorders do not understand them.⁷⁵

2. Video webcasting technology

I will now explain the basic technology of video webcasting with the example of video conferencing.

⁶⁹ <http://all-streaming-media.com/streaming-media-faq/faq-protect-streaming-video.htm> viewed on 13 October 2005

⁷⁰ *ibid* above

⁷¹ *ibid* above

⁷² A metafile is a collection of structures that store a picture in a device-independent format. Device independence is the one feature that sets metafiles apart from bitmaps.

⁷³ *ibid* above

⁷⁴ <http://all-streaming-media.com/streaming-media-faq/faq-protect-streaming-video.htm>

⁷⁵ <http://all-streaming-media.com/streaming-media-faq/faq-protect-streaming-video.htm>

For video conferencing it is necessary to have a *video input* such as a video camera or web cam⁷⁶, a *video output* such as a computer monitor or television, audio input (microphones), *audio output* (usually speakers associated with the display device or telephone) and a *telephone network* or the *Internet* in order to succeed with the data transfer.

In practice, the event as object of the webcast will be filmed by a team of broadcast professionals either with video cameras or web cams. The advantage of web cams is that the data is already stored in the digital format, which is necessary in order to send it immediately to a web server and create a live stream. If a webcast is supposed to be live, the filmed event is transmitted as 'streamed video' over the Internet. If the event is not to be webcasted live, the film will be post-produced, edited and finally encoded so that it can be placed in the Internet. The encoded webcast is then placed as a website on a server, which can be the clients server or the producers server. Users can access the webcast either from a clients website or the producers website, created especially for the event.⁷⁷

3. TV broadcasting

Recently there have been initiatives to use the peer-to-peer technology to distribute live TV. The main advantage of this approach over traditional distribution models is that it provides a way of sharing data delivery workloads across connected client systems as well as the distributor's own server infrastructure.⁷⁸ That means users will access different servers. Thus, popular audio or video streams will not be affected by server overloads.

⁷⁶ In this regard, webcam means a class of video camera devices which connect directly to the PC for the purpose of live streaming of images. While a webcam was originally created for videoconferencing, it is now especially used to provide panoramic views of cities or regions from different perspectives (then called metrocams).; http://en.wikipedia.org/wiki/Web_cam viewed on 13 October 2005

⁷⁷ http://www.b2bcast.com/csc/csc_fr_how.htm viewed on 4 October 2005

⁷⁸ http://en.wikipedia.org/wiki/Internet_television viewed on 4 October 2005

Introducing the peer-to-peer technology will also lead to drastic decreases of the operational costs for a stream provider; costs will not rise with rising user numbers.⁷⁹ The developments in P2P-TV are expected to give Internet television a boost and to break through to a mainstream audience.⁸⁰ On the other hand, the industry already fears for a new *Napster* scenario, i.e. real-time TV-sharing.⁸¹ Some initiatives for P2P TV already work; others are still tested.⁸²

4. Multicasting

The concept of webcasting is taken further with *multicasting*. Multicasting is a method of delivery (broadcasting) of information from one sender to multiple receivers simultaneously using a special multicast IP address.⁸³ People who want to receive the broadcast set their web browsers (or multicast receivers) to receive packets with the specific multicast address. That means data is delivered to multiple destinations over each link of the network only once and only create copies when the links to the destinations split.

Therefore, multicasting is the most efficient use of bandwidth for a large number of clients as it uses the same bandwidth for 100 clients as it does for one. To do multicasting, the entire data delivery path must be multicast-enabled by software, firmware or even hardware. So far, Internet Service Providers have shown little interest in updating their systems for multicasting. Thus, multicasting is mainly used on private networks or Intranets.⁸⁴

⁷⁹ http://en.wikipedia.org/wiki/Internet_television viewed on 4 October 2005

⁸⁰ http://en.wikipedia.org/wiki/Internet_television viewed on 4 October 2005

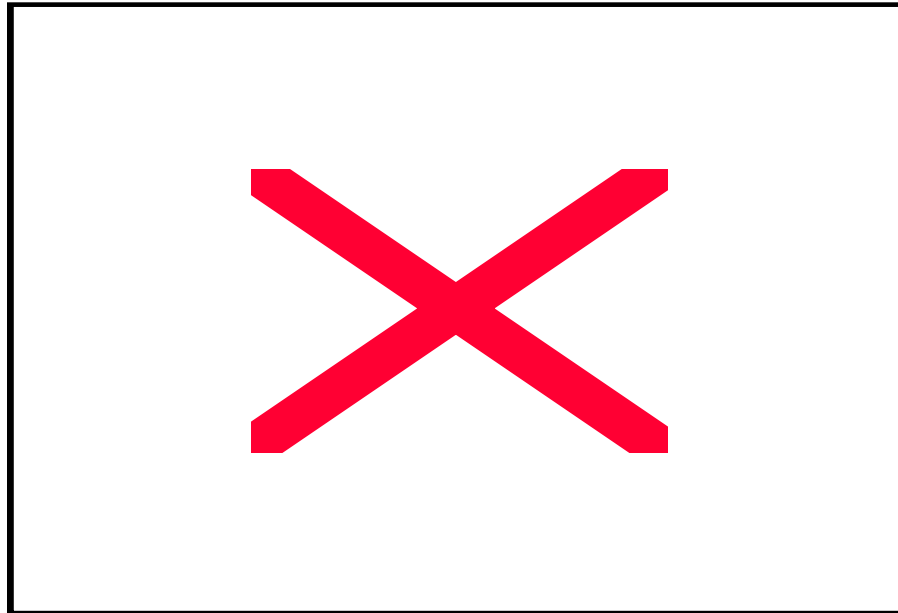
⁸¹ http://en.wikipedia.org/wiki/Internet_television viewed on 4 October 2005

⁸² http://en.wikipedia.org/wiki/Internet_television viewed on 4 October 2005

⁸³ www.linktionary.com/b/broadcasting_Internet.html viewed on 28 June 2005

⁸⁴ <http://www.streamingmedia.com/article.asp?id=8226&c=11>

The following chart⁸⁵ demonstrates the multicasting procedure:



⁸⁵ Chart provided by Soeren Rabenstein

5. Access to webcasts

Anyone who is able to connect to the Internet can access webcasts. To enjoy webcasting, one should have a computer with at least 166 MHz processor⁸⁶ and an Internet connection speed at least 28.8k for audio only and 56k for audio and video. The viewing will be enhanced by a broadband connection, but this is not necessary for viewing webcasts. Further, a web browser such as Netscape or Internet Explorer (version 4.0 or better⁸⁷), a sound card, a video card and speakers are needed. Finally, (the preferably latest version of) a media player such as RealPlayer or Windows Media Player will make it possible to access a webcast.

To actually open a webcast you normally have to choose between the media player and the Internet connection (DSL or ISDN) that you use by clicking on one of the options given.

⁸⁶ Most new computers have at least a 1 GHz processor.

⁸⁷ Current versions are Netscape Navigator 8.0 and Windows Internet Explorer 6.0. Windows Internet Explorer 7.0 to be released in March 2006.

C. Legal aspects

In the following part I will deal with the legal aspects and issues that relate to webcasting.

First, I will formulate the relevant legal issues that arise. The second part will shed light on the current legal status of webcasting, looking at both web radio and web TV. I will take a closer look at different countries and their regulatory approach to webcasting. I will examine whether any country has implemented special provisions for webcasting yet and if not, whether existing Broadcasting, Telecommunications and Copyright law is capable of dealing with the phenomenon of webcasting. The third part will deal with the copyright matters in regard to webcasting.

I. Formulation of issues

Webcasting is confronted with different legal issues and risks. These can be divided into four main areas, namely, licence regulation, copyright, competition, and webcasting piracy.

Regulatory issues

The first legal issue revolves around the licensing of webcasting and its content, looked at in relation with traditional broadcasting. Does webcasting need a broadcasting licence? Do we have to apply Broadcasting Acts? Are those Acts appropriate? How can we supervise webcasting, particularly in relation to advertisement and child protection?

Copyright issues

The second major legal issue area concerns the application of the copyright law. Basically, two questions arise here. First, does the webcasted content create a

copyright or any related protection right for the webcaster? This leads onto the second question of obtaining a licence from the copyright owner or collecting societies for webcasting content. This question will touch the question of legality of recording web streams.

Webcasting piracy

Webcasting is confronted with the phenomenon of piracy. Piracy of webcasts is the unauthorized taking of streams from the server and retransmitting them through the pirate's website.⁸⁸ Sometimes contents are captured directly from the over-the-air-transmission and then uploaded to the pirates' websites.⁸⁹ Another form of piracy is hacking into the webcaster's servers and stealing hidden content files.⁹⁰ The problem is that technological measures are only of temporary nature and have to be updated continually. Webcasting piracy is also an issue of copyright as it might describe a copyright infringement which depends on the question whether there is own copyright protection in webcasts. A further question is of technological nature, asking how piracy can be most effectively dealt with.

Competition issues

Webcasting reaches a large audience and is affected by supply and demand. The big chance of reaching a wide access of users challenges a broader offer of webcasting services. Webcasters also still compete with traditional broadcasters as they target the same listeners and advertisers. Which laws are relevant in this regard? Will it be necessary to implement new provisions?

In the following, I will focus on both the regulatory and the copyright issues.

⁸⁸ Webcasting and Technological Features Technological Features Seth D. Greenstein, McDermott, Will & Emery, counsel, Digital Media Association, June 23, 2003 presentation to WIPO, SCCR 9, http://www.wipo.int/documents/en/meetings/2003/webc_im/pdf/webc_im_ge_03_greenstein.pdf

⁸⁹ Ibid above

⁹⁰ Ibid above

II. Regulatory issues

1. Does webcasting require a regulatory licence?

There is no country yet which has introduced any express regulatory framework for webcasting. The issue of webcasting is being recognized and discussed in different countries, but no legal actions concerning a licensing structure have been taken so far. Until regulations are made, webcasting takes place in a legal void, which makes it an insecure investment.

2. Do existing Broadcasting Acts cover webcasting?

Even though there is no licence structure yet, existing broadcasting law could possibly be applied to webcasting, as well. A direct application of those Acts will require webcasting to be classified as broadcasting. Whether such interpretation is possible will admittedly depend on the definition of the Broadcasting Acts in the different countries.

Therefore, I will now take a closer look at existing Broadcasting Acts in different countries and their ambit.

a. Germany

In the legal sense, "broadcasting" in Germany is the general term covering "radio" and "television", the traditional electronic media which have emerged during the 20th century to take their place alongside the print media. The German constitution, the Grundgesetz, affords comprehensive protection to broadcasting (article 5 (1)) without actually defining the term. Broadcasting (both radio and TV) in Germany is precisely regulated by the federal states. The legal basis is the

*Rundfunkstaatsvertrag*⁹¹ of 1991 (2001) which is a treaty between the federal states (Broadcasting State Treaty). It lays down general programme principles and special provisions for public and private channels. It regulates issues such as licensing, frequency assignment, advertisement, protection of minors, satellite programming, digitalisation of broadcasting, tele-shopping, financing, etc. Those principles and regulations are required to be implemented by further regulations of the federal states. In terms of licensing the *Rundfunkstaatsvertrag* lays down that all private broadcasters need a licence to broadcast according to the specific federal law.

Although the *Rundfunkstaatsvertrag* does not expressly deal with webcasting, there is already a legal framework in regard to digital television, consisting of section 52a of the Broadcasting State Treaty (*digitalization of broadcasting*) and regulations of the states. This is understandable since both digital television and digital radio need capacities, as does analogue broadcasting. Only the format of data has changed as compared with analogue TV and radio. In terms of webcasting the question of frequency capacities does not arise though. To provide a webcast one needs a server to put the data on to. It is the normal process of activating a website which is registered with and supervised by independent bodies⁹².

Nevertheless, it might be possible for webcasting to be subsumed under the term “broadcasting” in terms of the *Rundfunkstaatsvertrag* (Broadcasting State Treaty) and therefore under the licensing duty. The term broadcasting is defined in section 2:

“Broadcasting is the organization and distribution of performances of any kind in text, sound and picture for the general public with means of electromagnetic

⁹¹www.hessenrecht.hessen.de/gvbl/gesetze/Staatsvertraege/35-

RundfunkSVG/rundfunkstaatsvertrag/Rundfunkstaatsvertrag.htm viewed on 5 October 2005

⁹² such as the DENIC⁹² for the Top Level Domain .de

waves without connecting circuit or alongside or by means of a conductor. The term includes performances which are encrypted or only to be received against payment."⁹³

The question is whether webcasting falls under such definition. The definition clearly covers the traditional ways of transmitting radio and television programmes, as those are distributed through electromagnetic waves, in the form of radio waves: The traditional ways of disseminating television and radio are by satellite, cable or terrestrial means as well as via long, medium, short and ultra short waves. Terrestrial television (also known as over-the-air television) is the traditional method of television broadcast signal delivery, *by radio waves* transmitted through open space.⁹⁴ Cable television is a system of providing television, FM radio programming and other services to consumers *via radio frequency signals* transmitted directly to people's televisions through fixed optical fibres or coaxial cables as opposed to the over-the-air method used in traditional television broadcasting (via radio waves) in which a television antenna is required.⁹⁵ Satellite television uses satellite signals to deliver television.⁹⁶

Webcasting likewise falls within the meaning of "broadcasting" as it is transmitted by means of electromagnetic waves, as well, through cable (modem, DSL) or wireless over the air (WLAN).

However, even a clear definition of traditional broadcasting will not avert that such definition will get blurred facing the merging of electronic media and

⁹³ Another translation could be: *"Broadcasting is the provision and transmission for the general public of presentations of all kinds of speech, sound and picture, using electrical oscillations without junction lines or along or by means of a conductor. The definition includes presentations transmitted in encoded form or receivable for a special payment, as well as broadcast videotext."*

⁹⁴ http://en.wikipedia.org/wiki/Terrestrial_television viewed on 6 October 2005

⁹⁵ http://en.wikipedia.org/wiki/Cable_television viewed on 6 October 2005

⁹⁶ http://en.wikipedia.org/wiki/Satellite_television viewed on 6 October 2005

computer-based information exchange. There is currently a political debate in Germany on the definition of broadcasting. The question came about largely because the legal categorisation of a new electronic service also raises the question whether the Federal Government or the states should have the regulatory responsibility.

Webcasting could also be a media service in terms of section 20 (2) of the *Rundfunkstaatsvertrag* though. The *Rundfunkstaatsvertrag* extends the licence duty to all media services, which are to be assigned to broadcasting. The definition of “*media services*” is to be found in section 2 of the *Mediendienstestaatsvertrag* (Media Services State Treaty) of 1997 (2003):

“Media services are information and communication services in text, sound, or picture, which are distributed for the public by means of electromagnetic waves without connection lead or alongside or by means of a conductor.”

This definition would also be capable of including webcasting as it uses some of the same terms as for broadcasting. In conclusion, it means that webcasting could need to be licensed. I will comment on the issue of the usefulness of licensing in the conclusion later on.

b. United Kingdom

In the United Kingdom, broadcasting is mainly regulated by the Broadcasting Act of 1990⁹⁷. The Act comprises both television (Part I) and radio services (Part III). For those services a licence is needed which will be issued either by the Independent Television Commission or the Radio Authority.

⁹⁷ http://www.opsi.gov.uk/acts/acts1990/Ukpga_19900042_en_1.htm viewed on 6 October 2005

Concerning television services, in section 2 (1) the Act refers to *television programme services* and *additional services* which are provided from places in the United Kingdom or from a place outside the United Kingdom for general reception within the United Kingdom *if and to the extent that the programmes included in the service consist of material provided by a person in the United Kingdom who is in a position to determine what is to be included in the service* (...).

Section 2 (4) defines television programme service as *a) television broadcasting service, b) a non-domestic satellite service and c) a licensable programme service*.

Additional services are defined in section 48 (1) as “*any service, which consists in the sending of telecommunication signals for transmission, by wireless telegraphy by means of the use of the spare capacity within the signals carrying any television broadcasting service* (...)”.

As to section 84 (1), radio service means (a) *sound broadcasting services*, (b) *licensable sound programme services* and (c) *additional services* that are provided from places in the United Kingdom. The term “broadcasting” is not defined in the Act.

Webcasting could fall under “television broadcasting service” and “sound broadcasting service” as the wording is quite vague. There is also room for webcasting, as the Broadcasting Act does not require a (radio or) television station only to be located and distributed from within the UK. Applied to webcasting it could be interpreted that the server does not need to be located within the United Kingdom.

The UK *Communications White Paper*⁹⁸ of 2001 did not bring any solution to the question of whether webcasting services will have to be licensed. The *White Paper* recognises that 'public service broadcasting (PSB) will continue to have a key role to play in the digital future, potentially an even more important role than it has now. The Government comments that, separate licences be retained for each ITV (independent television) region, including provisions relating to regional production and the contribution of each region to network programming. It has been also recommended to have legislative obligation upon the new unified regulator (OfCOM⁹⁹) for the communications and media sector to maintain a network of offices in the United Kingdom to facilitate effective monitoring of compliance with regional obligations by broadcasters. This is to apply the same high standards and high quality in broadcasting services on the Internet as they do on their traditional broadcast business. The proposals envisage a very clear focus for the regulatory functions of OfCOM (the independent regulator and competition authority for the UK communications industries) in relation to the broadcasting and telecommunications sectors.¹⁰⁰

The *White Paper* proposes a new 3-tier structure for a regulatory framework, with a first tier supporting basic standards (such as taste and decency, impartiality, EC quotas and, we hope, technical standards); a second tier responsible for 'easily quantifiable and measurable' PSB obligations (such as independent production quotas, original production quotas, regional production targets and peak time news); and a third tier applying to the 'qualitative' aspects of PSB, with an emphasis on self-regulation (but backed by legal duties and backstop powers).¹⁰¹

⁹⁸ <http://www.bectu.org.uk/policy/pol039.html> viewed on 28 September 2005

⁹⁹ <http://www.ofcom.org.uk> Ofcom is the independent regulator and competition authority for the UK communications industries, with responsibilities across television, radio, telecommunications and wireless communications services.

¹⁰⁰ <http://www.culture.gov.uk/PDF/CM5316.PDF>

¹⁰¹ <http://www.bectu.org.uk/policy/pol039.html#prog> viewed on 6 October 2005

Until any decision in this regard, community-based web radios operate in a legal void and their existence is therefore insecure.¹⁰²

c. South Africa

Broadcasting in South Africa is regulated by the Broadcasting Act of 1999¹⁰³, which includes both licenses for radio as for television broadcasting services.

According to the Broadcasting Act of 1999, "broadcasting," means *any form of unidirectional telecommunications intended for the public, sections of the public or subscribers to any broadcasting service having appropriate receiving facilities, whether carried by means of radio or any other means of telecommunication or any combination of the aforementioned.*

"Telecommunications" means *any system or method of conveying signs, signals, sounds, communications or other information by means of electricity, magnetism, electromagnetic waves or any agency of a like nature, whether with or without the aid of tangible conductors, from one point to another.*

Even though neither the Broadcasting Act nor Broadcasting Amendment Act of 2003¹⁰⁴ mention webcasting services, I think the definition of broadcasting in the Broadcasting Act would be broad enough to include webcasting as it consists mainly of signals, sounds and information for the public and is distributed by means of electromagnetic waves. This view is supported by section 5 of the Act, which determines the classes of licences. Webcasting services are not expressly listed, but could fall under section 5 (2) 11 as it is sufficiently broad to deal with new technologies.

¹⁰² <http://www.fraw.org.uk/mobbsey/pdfs/irtb11.pdf> viewed on 6 October 2005

¹⁰³ <http://www.icasa.org.za/Documents.aspx?Page=71> viewed on 6 October 2005

¹⁰⁴ Ibid above

5. Classes of licences.—

(1) *Subject to the provisions of this Act, the Authority may, on such conditions as it may determine, issue a sound or television broadcasting service licence for a specified area in the following broadcasting service categories:*

(2) *Subject to the provisions of this Act, the broadcasting licences are categorised in the following classes:*

(,,)

11. any other class of licence as determined from time to time.

Furthermore, the new Convergence Bill (2005)¹⁰⁵ has to be taken into account. The Convergence Bill aims to achieve convergence of telecommunications and broadcasting licence structures. It will introduce licences for content and application providers under which webcasting will probably be subsumed. Application service means a communications service provided by means of applications (“application” means any technological intervention by which value is added to a communications network service which includes the manipulation; storage; retrieval; distribution; creation; and combination, of content, format or protocol for the purpose of making such content, format or protocol available to customers). Content service means “content service” means the provision of content; or the exercise of editorial control over the content conveyed via a communications network to the public or sections of the public, such as online publishing and information services. Content includes any— sound; text; still picture; moving picture; other audio visual representation or sensory representation; or any combination of the preceding, which is capable of being created; manipulated; stored; retrieved; and communicated, but excludes content contained in private communications between consumers.

The question is whether live streaming of audio and/or visual contents is subject to a license? As defined beforehand streaming of audio or video is the

¹⁰⁵ <http://www.polity.org.za/pdf/ConvergenceBill9.pdf> viewed on 6 October 2005

transmission of media over Internet Protocols, usually not stored on the user's computer, is transmitted (almost) in real time, and in a highly compressed format.

Based on section 5 (2) of the Bill it could be argued that streaming services need to be licensed as do broadcasting services.

(2) The Authority may, upon application in the prescribed manner, grant individual licences for the following:

- (a) Subject to subsections (4) and (5), communications network services;*
- (b) radio frequency spectrum licences;*
- (c) subject to subsection (6), broadcasting services licenses; and*
- (d) such other services as may be prescribed.*

As shown before, webcasting can be considered such broadcasting service. As a consequence, streaming would become subject to a licence (section 7). This would bring with it a complex licensing procedure (section 8 to 19) which will take not only much time, but also cause high costs and occupy local authorities. A licensing requirement will therefore present a big obstacle for small webcasters. Whereas the access to streaming media is extremely cheap compared to traditional broadcasting, costly licensing will impede diversity. I will comment on the appropriateness of such licensing structure later on.

The ISOC (Internet society of South Africa)¹⁰⁶ is particularly concerned about the apparent need for a website owner or other types of content providers and application providers to obtain a licence. They argue that even though Malaysia, a developing with a vibrant and fast growing ICT sector, has adopted similar convergence legislation, licences for content providers are not required. The ISOC considers that any kind of licence to be counter-productive and extremely likely to be not only financially damaging but also vastly unenforceable.

¹⁰⁶ <http://www.isoc.org.za/>

The ISOC anticipates that the licensing of content providers will have the following effect that website owners (and other content creators) and application service providers would move their services offshore. Further, the Bill might discourage investment in communications in South Africa and therefore innovation within the sector. The ISOC also considers about the restriction of free speech and complications put upon small business owners.

d. Australia

According to the Australian Broadcasting Services (Online Services) Amendment Bill of 1999¹⁰⁷ which amended the Broadcasting Act of 1992, any person wishing to provide a *datacasting* service, including commercial and national broadcasters, must hold a *datacasting* licence. Only Australian companies, the national broadcasters, Government bodies or a body corporate established under Australian law for a public purpose may hold a datacasting licence.

However, as seen above in the Definitions section, datacasting is not equivalent to webcasting. Datacasting also uses spectrum frequencies. The Australian Government decided to make spectrum available for new datacasting services. That means broadcasters will be allowed to use spare transmission capacity on digital transmission channels to provide datacasting services. The spectrum will be allocated by the Australian Broadcasting Authority.

Although webcasting is not regulated in the Broadcasting Services (Online Services) Act, it is worth looking at the regulations about datacasting to see how a new technology is dealt with on a legal basis.

¹⁰⁷

<http://www.comlaw.gov.au/comlaw/Legislation/Bills1.nsf/framelodgmentattachments/FD62EF88FC0C9812CA256F72001F6D6A> viewed on 12 October 2005

As laid down in the Act, datacasters will be able to provide a range of services, including information programs where the sole or dominant purpose is to provide information on products, services and activities; interactive home shopping, banking and bill paying; web pages; e-mail services; education services and interactive games. Datacasters will be prevented from showing most genres of television programs with generally only ten minute bulletins (news, sports news, weather etc) or short extracts (drama, current affairs, infotainment etc) permissible.¹⁰⁸

There are two main categories of licences, licences for category A television programmes and category B television programmes. A *Category A television programme* includes, for instance, a drama programme, a sports programme, a music programme, a documentary programme, an entertainment programme, or a programme that consists of a combination of any or all of the above programmes. Educational or information-only programmes are excluded. A *Category B television programme* comprises news, financial, business and suchlike programmes. Educational or information-only programmes or a foreign-language news bulletin are excluded.

In my opinion, the categorization of programmes is a good way of building a basis for certain differing restrictions and content regulations. Webcasting services would have to be differentiated first as web radio, web TV or any other webcasting service, which would include video conferencing and suchlike. Further, each class should have different categorization, e.g. news, entertainment, children's programmes, etc. in order to provide for sophisticated regulation and restriction provisions.

¹⁰⁸ http://www.aba.gov.au/newspubs/speeches/documents/fg_broadcastasia_2000.PDF viewed on 6 October 2005

There are some services, which datacasters can provide without any restrictions. These include: information-only programs (including those enabling people to carry out transactions), educational programs, interactive computer games, Internet content, electronic mail, Parliamentary broadcasts, content in the form of text or still images, electronic program guides, and advertising or sponsorship material.

The application procedure requires the applicant to provide a brief description of the nature and content of the datacasting, and give information about whether the it will include interactive elements, to describe such elements, their purpose and how they will be presented to and used by the recipient of the service. The application form for a licence for datacasting can be downloaded from the Australian Broadcasting Authority's website¹⁰⁹. The current application fee is AUD \$ 350,00.

No matter whether webcasting services should need to be licensed or only registered, which I will discuss about later on, it will be necessary to offer such licence or registration procedure online and to ask for an accurate description of the services to be provided in order to undertake the proper and appropriate categorization.

e. United States

In the United States broadcasting is dealt with in Title 47 of the United States Code (U.S.C.)¹¹⁰, the Public Broadcasting Act of 1967¹¹¹, and the Communications Act of 1934 (amended by the Telecom Act of 1996). Licenses

¹⁰⁹ http://www.aba.gov.au/licplan/broadcasting/types/documents/aba_51.pdf viewed on 3 October 2005

¹¹⁰ <http://www.access.gpo.gov/uscode/title47> viewed on 3 October 2005

¹¹¹ <http://www.cpb.org/aboutpb/act/text.html> viewed on 6 October 2005

for broadcasting are issued by the Federal Communications Commission (FCC)¹¹².

According to section 307 of Title 47 Chapter V of the U.S.C. any radio broadcasting service needs to be licensed. In terms of section 153 “broadcasting” means “*the dissemination of radio communications intended to be received by the public, directly or by the intermediary of relay stations*”. The licensing of television broadcasting is dealt with in section 336 (Broadcast spectrum flexibility).

Even though webcasting is not expressly included in the Act, it may fall under the broad definition of broadcasting.

f. Malaysia

Malaysia is the first country to have been implemented a convergence law in the field of communications and multimedia, the Communications and Multimedia Act of 1998 (CMA)¹¹³. Therefore, it is an example of how to build a new legal framework.

Under the Communications and Multimedia Act 1998, there are four categories of licensable activities:¹¹⁴

- Network Facilities Providers - who are the owners of facilities such as satellite earth stations, broadband fibre optic cables, telecommunications lines and exchanges, radio communications transmission equipment, mobile communications base stations, and broadcasting transmission towers and equipment. They are the fundamental building

¹¹² <http://www.fcc.gov/> - The FCC is an independent United States government agency.

¹¹³ http://www.mcmc.gov.my/mcmc/the_law/ViewAct.asp?cc=4446055&lg=e&arid=900722

¹¹⁴ http://www.mcmc.gov.my/mcmc/what_we_do/licensing/cma/framework.asp

block of the convergence model upon which network, applications and content services are provided.

- Network Services Providers - who provide the basic connectivity and bandwidth to support a variety of applications. Network services enable connectivity or transport between different networks. A network service provider is typically also the owner of the network facilities. However, a connectivity service may be provided by a person using network facilities owned by another.

- Applications Service Providers - who provide particular functions such as voice services, data services, content-based services, electronic commerce and other transmission services. Applications services are essentially the functions or capabilities, which are delivered to end-users.

- Content Applications Service Providers - who are special subset of applications service providers including traditional broadcast services and newer services such as online publishing and information services.

The CMA does not require licences for content providers under which webcasters

Within the four categories listed, one can obtain either an individual or a class licence. Individual licences are granted for activities where a high degree of regulatory control is required. Class Licences are annually renewable and are entered into Registers maintained by the Malaysian Communications and Multimedia Commission.

The Communications and Multimedia (Licensing) Regulations 2000 provide for standard licence conditions for all licences, and special licence conditions for each category of Individual licence.

g. Conclusion

As has been seen, most legal systems do not expressly deal with webcasting in their legislation relating broadcasting. However, most of the presented Broadcasting Acts are broad enough to cover webcasting, by construing the term of “broadcasting” accordingly.

However, in this regard it will depend on how courts apply the existing law. As there is no case history yet, it remains that a licence for webcasting services is not required at present.

3. Should webcasting be licensed?

The main question is whether webcasting should be licensed which entails a discussion of the pros and cons of a licence structure.

The question of licences for webcasting arises directly from the nature of webcasting itself. The parallels between webcasting and broadcasting are evident. Webcasting is broadcasting with means of the Internet. Content and purpose are similar or even the same. Both traditional and web TV or radio serve to inform and/ or to entertain the public. They provide the public with daily news, business reports, weather forecasts, movies, shows and commentaries, etc.. The need to deal with the licensing of webcasting is therefore apparent.

However, one should go back to the question why traditional broadcasting is licensed. There are two main reasons. First, a broadcasting licence exists to regulate the allocation of frequency spectrum. Licenses are limited to the available spectrum in the given geographical area. Secondly, supervision and with it a certain standard and quality of broadcasting content is guaranteed. Are these reasons relevant for webcasting, as well?

As mentioned previously, webcasting does not need any frequencies in the vein of traditional analogue or digital TV and radio. There is no scarcity of frequency in the Internet. To provide a webcast one needs a server to put the data onto; the platform is the Internet. Thus, in theory an unlimited number of webcasting services can be transmitted in parallel. Hence, the first reason is not relevant.

However, as the content and the purpose of broadcasting is basically the same, it would make sense to have (content) regulations applied to webcasting, especially in the field of advertisement and protection of minors. A broadcasting licence for webcasting would make webcasts being subject to the content regulations and supervision set forth in Broadcasting Acts. It would also encourage a certain standard of quality. On the other hand, it is the essential character of the Internet that content is not actively regulated, so why should webcasting be different to other forms of content?

I think it would be necessary to make a differentiation between the various kinds of content that are to be webcasted. Different licences for different categories should be considered, which would result in special rules for each category. Such categories could be news, entertainment, children's programmes and community programmes. For example, a broadcaster who applies for a news category licence should comply with certain provisions in terms of truth, objectiveness and completeness of programmes and their articles. Concerning the entertainment category the focus should be on minor protection (movies) and advertisement. The regulations of the Broadcasting Acts can here serve as navigation.

In terms of a licence fee structure it is questionable whether one is needed. The reason for paying a fee is basically the distribution and administration of frequencies. Whereas originally, broadcast licences were issued for only a nominal payment, the fee also represents the high economic value since the

limited spectrum (theory by economist Ronald Coase).¹¹⁵ You pay for the frequency spectrum that is allocated to your channel. With view of why a licence for webcasting should be introduced, i.e. to make a supervision possible, the introduction of regular fees would not be useful. Instead, having to pay a fee will make some webcasters avoiding the registration. However, this should not put forward against a licence fee.

In fact, there are also good reasons for a licence fee, such as the fact that it would tend to encourage more responsible broadcasting. However, any licence fee structure should not hinder small businesses, communities or private persons to webcast. Particularly for small-scale radio or TV providers, which might not have managed to obtain a regular broadcasting licence, webcasting is a big opportunity for them to establish a presence. Thus, any licence fee structure should either make allowance for the different categories or should preferably only cover the administration costs and any other costs, e.g. for establishing a registration and supervisory body. After all, the Internet is a platform for exchanging information and communication. The flexibility and variety of the Internet should not be restricted. A licence policy should have this basic purpose in mind and not eliminate small webcasters.

Especially in the UK, it has been put forward against a licensing duty for webcasting that it would be difficult for community-based web radios to obtain a licence as successive UK governments have traditionally been reluctant to expand community-based radio broadcasting.¹¹⁶ Requiring community-based web radio stations to obtain a licence would be a continuation of this policy. The growth of digital media and the Internet has given such web radios the ability to introduce a local community media. Webcasting represents a huge opportunity for people who previously have

¹¹⁵ http://en.wikipedia.org/wiki/Broadcast_license viewed on 14 September 2005

¹¹⁶ <http://www.fraw.org.uk/mobbsey/pdfs/irtb11.pdf> viewed on 14 September 2005

tried to obtain a licence for traditional radio. One such example is Radio Verulam.¹¹⁷ Short-term event licences were often the only alternative for such community radio stations.¹¹⁸ Another obstacle apart from obtaining a licence is the cost of applying for a licence. If the cost were high, many community-based webcasting services would be forced to discontinue their services.

In the United States, an approach to consider the situation of small webcasters regarding licence regulation has been taken by proposing the *Internet Radio Fairness Act* in 2002. Even though the Bill applies only in relation to copyright matters, it can serve as a lead. Small webcasters benefit from lower royalties for the use of copyrighted works.¹¹⁹

In conclusion, I wish to emphasise that registration rather than introducing a license policy would be the proper solution. Webcast services should need to be registered with a central and independent (international) body. This would make supervision of content (minor protection, advertisement etc.) easier and ensure a consistent approach.

This solution will have to be found on an international level sooner or later as all Internet issues have to be regulated on such level due to the international and borderless character of the Internet. Especially with the perspective of web TV growing rapidly in the next years and being completely available over the Internet. In that regard, the fact that there is not yet licence regulation for webcasting is not of a disadvantage. Not only that the market for web TV in particular is still small and therefore the need for regulation is limited. Any national regulatory system in regard to webcasting could, if another country

¹¹⁷ <http://www.radio-verulam.co.uk/>

¹¹⁸ <http://www.fraw.org.uk/mobbsey/pdfs/irtb11.pdf> viewed on 14 September 2005

¹¹⁹ I will deal with the *Internet Fairness Act* and the *Small Webcasters Settlement Act of 2002* in the following Part "Copyright Issues".

takes a different approach to dealing with webcasting, challenge the attempt to offer webcasts from another country without using a server located in the home country (offshore) and therefore, avoiding national regulation. As with every phenomenon in the Internet a different legal approach in the countries will provoke the avoidance of legal measures.

An international approach in regard to copyright matters has been initiated by the World Intellectual Property Organization (WIPO). I will present and discuss the WIPO proposal for webcasting treaty later.

Until any international solution in this regard, it might be desirable to include webcasting into existing Broadcasting Acts, to construe the Acts in order to cover webcasting or even through new convergence policies and legislation.

4. Which content regulations are appropriate for webcasts?

Even though there is no statutory licence for webcasting in any country so far, it will be necessary to regulate the content of webcasting. Hereby, it might be desirable to apply certain content regulations (other than licence regulations) from Broadcasting Acts to webcasters as webcasts have the same basic content as conventional broadcasts. The different form of transmission does not change the content. Content regulations relating to such issues as advertising (restrictions), protection of minors, tele-shopping, financing etc. would be worth looking at.

Thus, I will now examine the provisions of Broadcasting Acts of some countries to discuss about which provisions would be preferable and appropriate to webcasting. This examination will touch the question whether there is any Internet specific law already, which provide content regulations.

a. General programme principles

aa. Germany

In Germany, the *Rundfunkstaatsvertrag* (Broadcasting State Treaty) regulates the admissible content of broadcasting, dealing with television rather than with radio.

According to section 2 *Rundfunkstaatsvertrag* (Broadcasting State Treaty), all programmes have to respect and protect the dignity of men and religious and moral convictions. Programmes should strengthen respect for life, freedom and physical integration, for belief and opinions of others. Further, programmes have to offer adequate parts of information, culture and education in order to represent the variety of the German-speaking and European area.

Such provisions should be applied to both web radio and web TV content, as well. It is not relevant whether the webcaster is licensed as a radio or TV station, as well, and whether the webcaster webcasts exactly the same programme. In the latter case those provisions apply directly, and therefore supervision is already guaranteed, respectively. However, if a web radio or web TV channel is exclusively created for the Internet such provisions should be applied by way of analogy to provide the same standard.

bb. United Kingdom

Content regulation for radio and television broadcasting services in the United Kingdom is included in the Broadcasting Act of 1990¹²⁰.

¹²⁰ http://www.opsi.gov.uk/acts/acts1990/Ukpga_19900042_en_1.htm viewed on 14 September 2005

Section 6 of the UK Broadcasting Act requires television services to comply with the following requirements:

- (a) that nothing is included in its programmes which offends against good taste or decency or is likely to encourage or incite crime or to lead to disorder or to be offensive to public feeling;*
- (b) that any news given (in whatever form) in its programmes is presented with due accuracy and impartiality; and*
- (c) that due impartiality is preserved on the part of the person providing the service as respects matters of political or industrial controversy or relating to current public policy;*
- (d) that due responsibility is exercised with respect to the content of any of its programmes which are religious programmes, and that in particular any such programmes do not involve (i) any improper exploitation of any susceptibilities of those watching the programmes, or (ii) any abusive treatment of the religious views and beliefs of those belonging to a particular religion or religious denomination; and*
- (e) that its programmes do not include any technical device which, by using images of very brief duration or by any other means, exploits the possibility of conveying a message to, or otherwise influencing the minds of, persons watching the programmes without being aware, or fully aware, of what has occurred.*

As to section 90, radio services have to comply with the requirements of section 6 (a), (b) and (e).

To provide Internet media with the same standard of programmes such general principles should be applied, provided that broadcasting is construed in the broader sense as discussed above.

cc. Australia

Australian content on commercial television is regulated by mandatory standards by the Australian Broadcasting Authority (ABA)¹²¹, the Australian Content Standard and Television Program Standard 23 - Australian Content in Advertising. The purpose of the Content Standard is to promote the role of broadcasting services in order to develop and reflect identity, character and cultural diversity of Australia. It therefore supports the community's continued access to television programs produced under Australian creative control.

The Australian Content Standard requires all commercial free-to-air (non-subscription) television licensees to broadcast an annual minimum transmission quota of 55 per cent Australian programming between 6 am and midnight. In addition there are specific minimum annual sub-quotas for Australian (adult) drama, documentary and children's programmes. According to section 16 a broadcasting licensee must broadcast each year, between 6 am and midnight, at least 20 hours of first release Australian programs that are documentary programs each of at least 30 minutes duration.

Suchlike provisions would not make sense in regard to webcasting, as the Internet mainly works on an international demand and supply, not so much on a local level.

b. Minor protection

While both television and radio may have the power to teach and assist children to learn important information, skills, values, and behaviour, and to

¹²¹ www.aba.gov.au

entertain them, they might have harmful, pornographic and violent content, as well. With the Internet as new medium this risk has been extended as more content is available and it is also easily accessible. Therefore, protection of children has become more severe and urgent than ever before. Even though the Internet is an international network, there are not yet any international laws regulating pornography in the Internet. Thus, each country deals with Internet pornography differently. Even though there is a broad consent in regard to online pornography between the countries and some countries prohibit or heavily restrict access to pornography, it will remain a relevant issue as long as the pornographic content is legal in countries where it is being distributed (transmitted). In that case, the distributor of such content does not act against the law regardless whether the content is accessible in countries where it is illegal. Another problem is the differing definitions of child pornography from country to country. For example, some content that is illegal child porn in the United States is still legal in Russia.¹²²

National legislation against online pornography might well cover such distributors but the ever-existing issue will be the (im-) possibility of prosecution and enforcement of such laws. Thus, other approaches to limit access have to be taken, for instance, using Internet content filters. This approach has been taken by China and Saudi Arabia.¹²³ However, banned pornography websites can still be accessed if they relocate to a hosting server within another country, which does not restrict such contents.

In conclusion, the legal status of Internet pornography is still unsettled.

aa. United States

¹²² http://en.wikipedia.org/wiki/Internet_pornography - Russia has no specific laws on children pornography, what makes it popular to use Russian websites to transmit pornographic content. viewed on 14 September 2005

¹²³ Ibid above

In the United States, content regulation of broadcasting is to found in the *Public Broadcasting Act* of 1967¹²⁴, the *Communications Act* of 1934 (amended by the *Telecom Act* of 1996), *Communications Decency Act* of 1990¹²⁵, and also in Title 47 of the United States Code (U.S.C.)¹²⁶. Compliance with regulation for broadcasting services is mainly supervised by the Federal Communications Commission (FCC).

Various approaches have been taken to regulate pornography on the Internet and to restrict children's access to suchlike. The first attempt was the federal *Communications Decency Act*. Some other Acts have partly been ruled unconstitutional by the US Supreme Court or are currently tied up in court.¹²⁷ Some companies use age checking system, or an Adult Verification System to deny access to pornography to minors.¹²⁸

The Communications Decency Act prohibited the "*knowing*" transmission of "*indecent*" messages to minors and the publication of materials which depict, in a manner "*patently offensive as measured by contemporary community standards, sexual or excretory activities or organs*", unless those materials were protected from access by minors, for example by the use of credit card systems. However, these provisions were stricken down by the U.S. Supreme Court in 1997. The "indecent transmission" and "patently offensive display" provisions were ruled to limit the constitutional protection for freedom of speech of the First Amendment. Furthermore, the definition of obscenity was also considered not working well with the Internet, where material published

¹²⁴ <http://www.cpb.org/aboutpb/act/text.html> viewed on 19 September 2005

¹²⁵ http://www4.law.cornell.edu/uscode/html/uscode47/usc_sec_47_00000230----000-.html viewed on 14 September 2005

¹²⁶ <http://www.law.cornell.edu/uscode/html/uscode47> viewed on 14 September 2005

¹²⁷ http://en.wikipedia.org/wiki/Legal_status_of_internet_pornography viewed on 19 September 2005

¹²⁸ http://en.wikipedia.org/wiki/Internet_pornography viewed on 19 September 2005

in one location is accessible from all. The Supreme Court further ruled that it is legal to regulate the sale or transmission of obscenity, but that it is illegal to pass laws concerning the personal possession of obscenity.¹²⁹

Section 230 of the Communications Decency Act restricts liability of online service stating that *"No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider"*. That means ISP's will also not be responsible for any obscene, violent or otherwise objective material being published through them. Section 230 asks content providers to inform users about the possibilities of parental control protection though.

Section 230

§ 230. Protection for private blocking and screening of offensive material

(c) Protection for "Good Samaritan" blocking and screening of offensive material

(1) Treatment of publisher or speaker

No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider.

(2) Civil liability

No provider or user of an interactive computer service shall be held liable on account of—

¹²⁹ <http://en.wikipedia.org/wiki/Obscenity>

(A) any action voluntarily taken in good faith to restrict access to or availability of material that the provider or user considers to be obscene, lewd, lascivious, filthy, excessively violent, harassing, or otherwise objectionable, whether or not such material is constitutionally protected; or

(B) any action taken to enable or make available to information content providers or others the technical means to restrict access to material described in paragraph (1).

(d) Obligations of interactive computer service

A provider of interactive computer service shall, at the time of entering an agreement with a customer for the provision of interactive computer service and in a manner deemed appropriate by the provider, notify such customer that parental control protections (such as computer hardware, software, or filtering services) are commercially available that may assist the customer in limiting access to material that is harmful to minors. Such notice shall identify, or provide the customer with access to information identifying, current providers of such protections.

A second attempt to regulate the protection of minors in regard to the Internet was taken with the *Child Online Protection Act* (COPA) of 1998, which had the ambit to protect minors from harmful sexual material on the Internet. It forced all commercial distributors of "material harmful to minors" to protect their sites from access by minors. The law was twice stricken down as unconstitutional, ruling that it was too broad in using "community standards" as part of the definition of harmful materials and that it would hinder protected speech among adults. In June 2004 the Supreme Court upheld the injunction against the law, ruling that it was most likely unconstitutional but

that a lower court should determine whether newer technical developments could have an impact on this question.¹³⁰

Another Act to mention in regard to minor protection in the Internet is the *Children's Internet Protection Act*¹³¹ (CIPA) of 2000. The Act only refers to requirements for public libraries and schools to enforce Internet safety policies. For instance, those are obliged to employ filtering software to prevent children from using Internet terminals to view images of obscenity and child pornography and from viewing images “harmful to minors”.

Furthermore, it is a violation of federal law to air obscene programming at any time. It is also a violation of federal law to broadcast indecent or profane programming during certain hours (Public Telecommunications Act of 1992). The Act required the FCC to promulgate regulations to prohibit the broadcasting of indecent material from 6 a.m. to midnight, except for broadcasts by public radio and television stations that go off the air at or before midnight, in which case such stations may broadcast indecent material beginning at 10 p.m. The Congress has given the Federal Communications Commission (FCC) the responsibility for administratively enforcing the law that governs these types of broadcasts and to revoke station licences.

In its regulations of broadcast indecency, the FCC defined broadcast indecency as “*language or material that, in context, depicts or describes, in terms patently offensive as measured by contemporary community broadcast standards for the broadcast medium, sexual or excretory organs or activities.*” Indecent programming contains patently offensive sexual or excretory material that does not rise to the level of obscenity.¹³² Even though the courts held that indecent material is protected by the First Amendment and

¹³⁰ http://en.wikipedia.org/wiki/Child_Online_Protection_Act viewed on 14 September 2005

¹³¹ <http://www.ifea.net/cipa.html>

¹³² <http://www.fcc.gov/cgb/consumerfacts/obscene.html> viewed on 14 September 2005

cannot be banned entirely, it may be restricted in order to avoid its broadcast during times of the day when there is a reasonable risk that children may be in the audience.¹³³ Consistent with a federal statute and federal court decisions interpreting the indecency statute, the Commission adopted a rule pursuant to which broadcasts -- both on television and radio -- that fit within the indecency definition and that are aired between 6:00 a.m. and 10:00 p.m. are subject to indecency enforcement action.¹³⁴

bb. Australia

Australia is said to have one of the very restrictive laws on Internet censorship.¹³⁵ Australia passed a broad law restricting obscene and indecent content on Australian-based Web sites in 1999, consisting of the regulation of obscene and indecent materials transmitted through the Internet. This law prohibits pornographic web sites based in Australia, but is unlikely to have much effect on Australians' ability to access Internet pornography due to the fact that the majority of pornographic Web sites is hosted outside Australia.¹³⁶ Australian authorities also show only little interest and effort in enforcing such law.¹³⁷

The *Broadcasting Services Act* of 1992¹³⁸ (BSA), which provides the legislative foundation for regulation of content on commercial, community, subscription (pay), and class licensed (narrowcast) services, places a high priority on the protection of children from harmful material. The compliance

¹³³ Ibid above

¹³⁴ Ibid above

¹³⁵ http://en.wikipedia.org/wiki/Internet_censorship_in_Australia viewed on 24 September 2005

¹³⁶ Ibid above

¹³⁷ Ibid above

¹³⁸ <http://www.aba.gov.au/about/legislation/broadcasting.shtml> viewed on 24 September 2005

with such regulation is supervised by the mandatory Australia Broadcasting Authority (ABA).

In case of commercial radio or television services, the content of programmes is required to comply with either standard licence conditions in the Broadcasting Services Act, or mandatory ABA program standards, or industry codes of practice.¹³⁹

The *Broadcasting Services Amendment (Online Services) of 1999*¹⁴⁰, which came into effect on January 1, 2000, empowering the Australian Broadcasting Authority (ABA) to examine material "on the Internet" under the guidelines for film and video.

The purposes of the Act are:

- To establish a complaints-based legal regime, using existing systems and methods of classifying content, administered by the Australian Broadcasting Authority, to regulate the carriage of content over the Internet;
- To ensure that internet service providers (ISPs) are not, in the first instance, liable for material carried on their service, but that primary responsibility for such material lies with the creator of the material;
- To ensure that, once notified of the existence of illegal or highly offensive material on their service, ISPs have a responsibility to remove or block access to such material;
- To ensure that, in the case of overseas-hosted material, ISPs develop a Code of Practice which sets out the "reasonable steps" that an ISP will

¹³⁹ <http://www.aba.gov.au>

¹⁴⁰ [http://www.dcita.gov.au/broad/radio/broadcasting_content/content_regulation - overview](http://www.dcita.gov.au/broad/radio/broadcasting_content/content_regulation_-_overview) viewed on 4

take to block access to illegal or highly offensive overseas-hosted material;

- To provide that the ABA, rather than a service provider, will be the first point of contact for complaints about internet content;
- To establish a community/ industry body to monitor online material;
- To provide community education and information;
- To operate a public complaints "hotline" to receive information from the public about offensive material and to pass on this information to the ABA and to relevant law enforcement agencies in Australia or overseas;
- to classify content and to regulate the carriage of content over the internet.

Section 10 of the *Broadcasting Services Amendment (Online Services) Act* deals with prohibited Internet content. The Act differs between content hosted in Australia and offshore.

Internet content is defined as being *information that (a) is kept on a data storage device; and (b) is accessed, or available for access, using an Internet carriage service; but does not include: (c) ordinary electronic mail; or (d) information that is transmitted in the form of a broadcasting service.*

If defining webcasting as such broadcasting service, it will not be covered by the Act. However, the regulations of the Act might serve as an orientation how to deal with offensive, violent, and suchlike content in webcasting services.

Internet material is being classified according to the Classification (Publications, Films and Computer Games) Act of 1995¹⁴¹. Three types of classification are relevant to Internet content: RC (refused classification), X (restricted to people of 18 and over because of explicit sexual content) and R (restricted to people of 18 and over because of high impact of content).

If the ABA is satisfied that Internet content hosted in Australia is potential prohibited content, and is likely to be classified RC or X, the ABA must a) request the Classification Board to classify the content; and (b) give the relevant Internet content host an interim take-down notice directing the host not to host the content pending the classification of the content. That means the material must be removed from the site.

If the ABA is satisfied that Internet content hosted in Australia is potential prohibited content, and is likely to be classified R, the ABA must request the Classification Board to classify the content.

If the ABA is satisfied that Internet content hosted in Australia is prohibited content, the ABA must give the relevant Internet content host a final take-down notice directing the host not to host the prohibited content.

If the ABA is satisfied that Internet content hosted outside Australia is prohibited content or potential prohibited content, the ABA must:

- (a) if the ABA considers that the content is of a sufficiently serious nature to warrant referral to a law enforcement agency—notify the content to an Australian police force; and

¹⁴¹ <http://www.oflc.gov.au/resource.html?resource=177&filename=177.pdf> viewed on 14 September 2005

- (b) notify the content to Internet service providers so that the providers can deal with the content in accordance with procedures specified in an industry code or industry standard (for example, procedures for the filtering, by technical means, of such content).

Additionally, the web site, which is hosted outside Australia, will be added to a list of banned sites. This list of banned sites is then added to filtering software, which must be offered to all consumers by their Internet Service Providers. Consumers are not required to install such filtering software.

Section 10

Internet content hosted in Australia

- (1) *For the purposes of this Schedule, Internet content hosted in Australia is **prohibited content** if:*
 - (a) *the Internet content has been classified RC or X by the Classification Board; or*
 - (b) *both:*
 - (i) *access to the Internet content is not subject to a restricted access system.*
 - (ii) *the Internet content has been classified R by the Classification Board; and*

Internet content hosted outside Australia

- (2) *For the purposes of this Schedule, Internet content hosted outside Australia is **prohibited content** if the Internet content has been classified RC or X by the Classification Board.*

The Australian Government introduced the Online Content Co-Regulatory Scheme on 1 January 2000 (established under Schedule 5 to the *Broadcasting Services Act 1992*) to address community concerns about the

nature and accessibility of illegal and highly offensive Internet content. This scheme applies to both Internet content hosts and Internet service providers. Webcasters have to be considered as content hosts as they store information, images, etc. via the web. The Scheme, provides for the development and operation of industry codes of practice for the Internet industry, and requires Internet service providers (ISPs) and Internet content hosts (ICHs) to inform users about content filtering tools.

Three industry codes of practice for commercial radio and television have been developed by the Internet Industry Association (IIA)¹⁴² which generally cover most matters relating to the content and presentation of programs, including the classification of programs and the amount of advertising allowed. The Industry codes (3) have been developed by the Internet Industry Association (IIA) in consultation with industry, the ABA, NetAlert, and interested community groups and members of the public. One key element of the codes is an additional protection of minors by ensuring that persons under the age of 18 years cannot open an Internet access account without the consent of a parent, teacher or other responsible adult.

cc. United Kingdom

In the United Kingdom, the *Internet Watch Foundation*¹⁴³ has to watch for pornographic content in the Internet that is in violation of British law and report it to authorities. Internet service providers established the Internet Watch Foundation in 1996. To distribute obscene material is prohibited under the *Obscene Publications Act of 1959*.

¹⁴² www.iaa.net.au

¹⁴³ <http://www.iwf.org.uk/>

Furthermore, the *Criminal Justice and Public Order Act of 1994* has been extended to cover electronic transmission of obscene materials. It is an offence to publish obscene and indecent materials

Only recently, in August 2005, the government confirmed its plan to ban possession of violent Internet pornography.

dd. Germany

According to section 3 *Rundfunkstaatsvertrag* (Broadcasting State Treaty), programmes are inadmissible if they violate any provision of the Penal Code, if they glorify war, endanger the moral development of children and youth or portray dying or seriously ill people in an undignified way.

Programmes, which might interfere with the physical, mental or psychological well-being of children or youth, must not be distributed (broadcasted) unless the broadcaster (organiser) takes special precautions. One such precaution relates to the time at which the programme is shown. For movies which are released with a '16' age restriction, according to the *Gesetz zum Schutz der Jugend in der Öffentlichkeit*¹⁴⁴ an appropriate time will be between 10pm and 6am. Movies for people over 18 years can be broadcasted between 11pm and 6am. The age restriction must be made apparent to viewer through acoustic or optical indications.

Such provisions would be difficult to apply for webcasting as they refer to real time, whereas local time for a viewer of Internet material is dependent on the time zone he or she is in. Live programmes that are webcasted though the Internet can be reached anywhere in the world at different times.

¹⁴⁴ Protection of minors in public Act.

In conclusion, any such programme that could endanger the physical and psychological development of children must be banned from the Internet. Another possibility is to introduce a special protection system in terms of limited access and regardless of time (a specified access-control system). For instance, certain webcasted movies should only be accessible for adults or for certain age groups.

Attempts to restrict access to websites by minors have already been taken by cigarette companies at their advertisement websites. Normally only persons over 18 years can access such websites after registration. One such example is the cigarette company WEST. Before being able to enter the website www.west.de one has to register with name, address, age etc. The information given will then be checked by the SCHUFA, a credit institute. Only after the checking, the access will be given (or not).

Of course, such systems cannot provide absolute protection for minors. In fact, the effectiveness of such precautions is questionable as it might still be possible to register with false (but existing) or misleading personal data. Thus, the requirement of registration is more a barrier than an impossibility for the access to a certain website. However, this is nothing new compared to traditional TV. Access is still possible; unsupervised minors can also watch age-restricted movies at late time or record them and watch them later.

ee. Age restriction systems

Age restriction systems for movies have been introduced in order to rate the suitability of a movie for children and/or adults in terms of issues such as sex, violence and bad language. In some jurisdictions, such age restriction systems impose legal obligations of refusing the entrance of children or minors to certain movies (e.g. United Kingdom, ratings by the British Board of Film Classification), but mostly they do not create a legal obligation. However, movie theatres enforce the restrictions. In some countries (e.g. Australia,

France), an official government body decides on ratings; in other countries (e.g. the US), ratings are issued by independent, non-governmental bodies.

Even though, for instance in the United States, the ratings system by the *Motion Picture Association of America* (MPAA) is voluntary, most movie theatre chains will not show unrated films. In other countries such as France and Denmark, licences have to be obtained prior to the showing in theatres.

In the United States, the Federal Communications Commission (FCC) introduced the *TV Parental Guidelines* in 1996 as a ratings system established for television programmes to be screened for possibly offensive (sexual and violent) content. The restriction system combining letters and numbers is not self-descriptive at all. Whereas G for “General suitable” is clear, R (for “Restricted”) does not make clear for which ages the movie should be restricted. Any such rating system for webcasting services should be more self-descriptive in view to the international audience.

In France, a movie may be considered "pornographic or inciting to violence" (colloquially referred to as "X-rated"). In this case, the movie is subject to high taxation and may only be shown in specific theatres.

In Australia, Internet (online) content has been determined according to the Classification Board's Guidelines for Classification of Films and Computer Games. (R – adult themes, sex, drugs, nudity; X – actual sexual activity; RC – violence, crime, sexual violence, sexual fetish, child depiction). According to the Broadcasting Services (Online Services) Amendment Bill of 1999¹⁴⁵, the Australian Broadcasting Authority¹⁴⁶ has

¹⁴⁵

<http://www.comlaw.gov.au/comlaw/Legislation/Bills1.nsf/frame1odgmentattachments/FD62EF88FC0C9812CA256F72001F6D6A> viewed on 30 September 2005

¹⁴⁶ <http://www.aba.gov.au/>

to ask the Classification Board to classify potentially prohibited Internet content hosted in Australia. In the case of Internet content hosted outside Australia, the ABA generally determines the classification itself. The ABA issues 'take-down' notices with respect to all items of prohibited Internet content hosted in Australia. Prohibited or potentially prohibited Internet content hosted outside Australia is notified by the ABA to the makers of approved filters in accordance with the Internet industry code of practice for ISPs.

ff. Conclusion

The protection of minors is a key issue in terms of regulation of the Internet. However, this issue is not particular to webcasting but is a broader issue. The growing supply of webcasting services, above all of web movies, could encourage moves towards regulating the issue of protection of minors on the Internet on an international basis.

The issue of minor protection seems not as problematic in the case of web radio, since it is mainly music that is broadcast. However, even though the spoken word plays only a secondary role, it can affect the integrity of minors, for instance through sex talks, reading of pornographic stories, the use of obscene language etc. The additional danger of web TV is video data. Protection in the area of web TV is therefore more necessary.

Even though an international agreement or guideline regarding the matter is very much needed, it turns out to be quite difficult to think about a legal framework that could deal with it. Not only that approaches towards minor protection partly differ extremely in some countries, it is also the question of enforcement and supervision that makes it 'complicated' to set up an international law concerning the issue. For the immediate future, guidelines or

codes of conduct should be introduced, which would have no legal effect, but might have the effect of voluntary compliance.

Additionally, since the age restriction classification for movies (broadcasted, sold or rented) varies from country to country, it is desirable to adopt a general classification for Internet content. Any such system should be easily understandable using clear and self-descriptive abbreviations. The age restriction should be made apparent by clear visual marks for age restriction and content information before opening the web streaming and should remain during the entire streaming. An acoustic mark could be considered for the beginning of a streaming, but this would be only of supportive character as it depends on the availability of speakers at the user's computer.

c. Advertisement

aa. Germany

Regulations for advertisement include regulation concerning the content and the duration of advertisements.

According to *section 7 Rundfunkstaatsvertrag* advertisement or tele-shopping must not mislead consumers, damage their interests such as health and security, or endanger environmental protection. Advertisement or tele-shopping, which is addressed to children or youth, must not exploit their interests or use their lack of experience. Advertisement must not influence the content or organisation of programmes. Advertisement must be identified clearly. In regard to radio advertisements, these have to be clearly separated from other programme parts through acoustical means. Advertisement of political or religious kind is not admissible.

Advertising on national channels (such as ARD, ZDF) is restricted to 20 minutes per day, between 6 p.m. and 8 p.m.

bb. United Kingdom

Section 8 (2) of the Broadcasting Act lays down general provisions relating to advertisements within television broadcasting services. A licensed service must not include any advertisement, which is inserted by or on behalf of any body whose objects are wholly or mainly of a political nature or which has somehow politically intended or is related to any industrial dispute. Furthermore, there should be no unreasonable discrimination against or in favour of any particular advertiser (fair competition).

cc. Australia

Advertising is regulated by the Advertising television program standard (TPS) 23. The object of the regulations is to ensure that the majority of advertisements on television are Australian made, by means of a flexible regulatory system. According to section 5 a broadcasting licensee must ensure that at least 80% of the total advertising time broadcast in a year by the licensee, between the hours of 6.00 am and midnight, is occupied by Australian produced advertisements. The standard does not give any content regulations.

Advertising to children is regulated by the Children Television Standard (CTS).¹⁴⁷ The CTS aims to ensure that advertising material directed to children is presented clearly and in a way which children understand. In particular, CTS 17 states: *“No advertising may mislead or deceive*

¹⁴⁷ http://www.aba.gov.au/tv/content/requirements/children/documents/chstdvarn_03.pdf viewed on 30 September 2005

children, and nothing in these standards shall be taken to limit the obligation imposed by this standard.”

The ABA pre-classifies both programs and commercials as C (suitable for primary school children) or P (suitable for preschool children) if they are suitable for children. To classify as C or P programme, programmes and commercials have to comply with certain requirements, e.g. they must not demean individuals or groups of people on the basis of race, nationality, ethnicity, gender, sexual preference, religion or mental or physical disability; they must present images or events in a way which is unduly frightening or distressing to children; depict unsafe uses of a product or unsafe situations which may encourage children to engage in activities dangerous to them; etc. During P programmes, no advertisements are allowed. During C programmes, 5 minutes of advertising can be shown in each 30 minutes. Advertisements should be clearly presented, must not mislead children or put any pressure on them.

dd. South Africa

All advertising on electronic broadcast media is subject to the *Independent Broadcasting Authority Act of 1993*. In terms of this Act all electronic broadcasters must adhere to the ASA Code (Code of Advertising Practice¹⁴⁸) as determined and administered by the Advertising Standards Authority of South Africa (ASA)¹⁴⁹. This independent body is been set up to regulate advertising in the public interest through a system of self-regulation. The Code is based upon the International Code of Advertising Practice. This Code is supplemented by individual codes, which are

¹⁴⁸ www.asasa.org.za/Default.aspx?mnu_id=9 viewed on 14 September 2005

¹⁴⁹ www.asasa.org.za

determined by the various member organisations or negotiated with governmental institutions and to be found in the Appendices to the Code.

ee. International Code of Advertising Practice

International Code of Advertising Practice¹⁵⁰, prepared by the International Chamber of Commerce. The Code is internationally accepted as the basis for domestic systems of self-regulation. It refers to advertisement in the broadest sense, e.g. any form of advertising goods or services, regardless of the medium used. Therefore, advertisement within webcasting services should fall under that, as well. The Code lies down general principles such as the following:

All advertising should be legal, decent, honest and truthful.

Every advertisement should be prepared with a due sense of social responsibility and should conform to the principles of fair competition, as generally accepted in business.

No advertisement should be such as to impair public confidence in advertising.

The Code also touches questions of safety, health, children and youth, unsolicited goods, comparisons, etc.

Article 12 requires that advertisements should be clearly distinguishable as such, whatever their form and whatever the medium used; when an advertisement appears in a medium which contains news or editorial matter, it should be so presented that it will be readily recognized as an advertisement.

d. Summary and conclusion

¹⁵⁰ www.itcilo.it

In conclusion, it has to be said that content regulation is needed for webcasting in the nearer future to guarantee a certain content standard especially having in mind that webcasting services basically encompass media, e.g. web radio and web TV. Media is an important part of daily life in democracies, especially because they have a great impact on the formation of opinions. The Internet is already largely being used as a source of information. With the growing supply and acceptance of informative web streams (by news channels), a certain quality of media is indispensable. However, the variety of supply in the Internet will make it a big challenge to capture the issue at hand.

General programme provisions should be applied to webcasting as well as there is little difference in the type of content. Mostly, these can be applied directly to webcasting when construing broadcasting in a broader sense (as above). Most important would be the introduction of regulations for protection of minors and relating to advertisements. Minors need to be protected especially against adult content, pornographic audio or video data and other harmful content. Such provisions should relate to already existing provisions within the Broadcasting law. Industry codes, guidelines and already approved age restriction systems should be considered and put together in a new legal framework.

Any international approach in this regard will have to harmonize the existing content regulations, which actually do not differ extremely. Generally, the Broadcasting or neighbouring Acts include the most important issues of minor protection and advertisement. Especially in the European countries there is a similar standard provided.

III. Copyright issues

1. Introduction

As pointed out above, there are two main questions in regard to webcasting and copyright. First, does the webcasted content create an own copyright or any related protection right for the webcaster? Related to that is the question whether the recording of streaming media and the replaying of the records would infringe such right (if existent)? The second main issue circles around copyrights of webcasting content, which rights to be obtained, how to obtain licences, to whom to pay royalty fees, whether it is legal to record web streams, etc.

Copyright is a set of exclusive rights “granted” for a limited time to regulate the use of a particular form, way or manner in which an idea or information is expressed.¹⁵¹ Even though copyright law is regulated on a national basis, there are international agreements, which provide for a similar level of copyright protection worldwide. Amongst them is the *Berne copyright convention*¹⁵², which almost all major nations have signed.¹⁵³ Since 1967, the Berne Convention has been administered by the WIPO, the World Intellectual Property Organization. There is another relevant international convention, the *Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations*¹⁵⁴, which dates from 1961 and extends

¹⁵¹ http://en.wikipedia.org/wiki/International_copyright_law viewed on 30 September 2005

¹⁵² http://www.wipo.int/treaties/en/ip/berne/pdf/trtdocs_wo001.pdf viewed on 30 September 2005

¹⁵³ The Berne Convention for the Protection of Literary and Artistic Works, called the Berne Convention, adopted at Berne in 1886, first established the recognition of copyrights between sovereign nations. It was developed at the instigation of Victor Hugo. The Berne Convention has been revised a few times: Berlin (1908), Rome (1928), Brussels (1948), Stockholm (1967) and Paris (1971). http://en.wikipedia.org/wiki/Berne_Convention_for_the_Protection_of_Literary_and_Artistic_Works

¹⁵⁴ http://www.wipo.int/treaties/en/ip/rome/pdf/trtdocs_wo024.pdf viewed on 30 September 2005

protection to performers, record producers and broadcasters. The *Rome Convention* has been ratified by far fewer states. The United States, for instance, is not a signatory to the Rome Convention. Further there is the *TRIPs Agreement*¹⁵⁵, an international treaty of the World Trade Organization (WTO), which sets down minimum standards for most forms of intellectual property regulation within all member countries of the WTO. The *TRIPs Agreement* requires non-members to accept almost all of the conditions of the Berne Convention. Finally, there is the WPPT (WIPO Performances and Phonograms Treaty)¹⁵⁶, which refers to the copyrights of performing artists and sound medium storage producers. No European country has signed the WPPT.

2. Relevant jurisdiction

A key issue, which has not yet been formally agreed upon on at the international level, is the question about the relevant jurisdiction for a transnational broadcast. Is the law applicable where the broadcast originates from, or where it is received?

The *EU Council's Directive 93/98/EEC of 29 October 1993 harmonising the term of protection of copyright and certain related rights*¹⁵⁷ specifies that a broadcast takes place “where the programme-carrying signals are introduced under the control and responsibility of the broadcasting organisation into an uninterrupted chain of communication leading to the satellite and down towards earth”.

¹⁵⁵ TRIPs - Agreement on Trade-Related Aspects of Intellectual Property Rights

¹⁵⁶ http://www.wipo.int/treaties/en/ip/wppt/pdf/trtdocs_wo034.pdf viewed on 3 October 2005

¹⁵⁷ <http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ.do?uri=CELEX:31993L0098:EN:HTML>

viewed on 3 October 2005

Thus, if a broadcast originates in country A, is then relayed by cable to country B, where it is up-linked to a satellite owned by an organisation whose headquarters are registered in country C, using frequencies allocated to country D, the broadcast is deemed to originate in country A.¹⁵⁸

It can be assumed that the international community will follow the European direction.

In relation to webcasting, it is difficult to define where the webcast comes from. There is no fixed 'broadcasting station' from which signals are sent. Instead, webcasters can create their webcast anywhere in the world and put it on to any server. Thus, in defining where a webcast is deemed to originate one should refer to the applicability of different laws in regard to Internet matters and not to broadcasting. So far, each country claims at least jurisdiction for its territory and over its nationals. In regard to webcasting services, for example in Germany, this will mean that national law will be applied as long as the webcaster is of German nationality or if the webcast is being put onto a server from Germany.

3. Copyright protection for broadcasting (and webcasting)

The question is whether there is a general copyright protection for radio or television broadcasts, which could then be applied to webcasting, as well.

a. Berne Convention

The *Berne Convention* only refers to literary and artistic works. In Article 11bis the *Berne Convention* includes the exclusive right of authors of literary and artistic works to authorize (i) *the broadcasting of their works or the*

¹⁵⁸ <http://www.museum.tv/archives/etv/C/htmlC/copyrightlaw/copyrightlaw.htm> viewed on 5 October

communication thereof to the public by any other means of wireless diffusion of signs, sounds or images (...).

In terms of this definition, the *Berne Convention* recognizes broadcasting as one way of using the creative work and the awarded copyright, i.e. broadcasting belongs to the content of the copyright. However, the international protection afforded by the *Berne Convention* does not extend to broadcasts.

b. Rome Convention

The *Rome Convention*¹⁵⁹ in Article 2 expressly protects broadcasting.

1. For the purposes of this Convention, national treatment shall mean the treatment accorded by the domestic law of the Contracting State in which protection is claimed:

(a) to performers who are its nationals, as regards performances taking place, broadcast, or first fixed, on its territory;

(b) to producers of phonograms who are its nationals, as regards phonograms first fixed or first published on its territory;

(c) to broadcasting organisations which have their headquarters on its territory, as regards broadcasts transmitted from transmitters situated on its territory.

The right of broadcasting organization includes to protect the broadcast itself from being copied, broadcast or communicated to the public by cable. Thus, once the broadcaster has acquired the constituent rights in the broadcast, these can form the basis of protection for the broadcast itself.

¹⁵⁹ http://www.wipo.int/treaties/en/ip/rome/pdf/trtdocs_wo024.pdf viewed on 3 October 2005

Broadcasters that are established in states, which are not signatories to the Rome Convention, may have to rely for protection on bilateral agreements between the country where they are established and the country where protection is claimed. Elsewhere, the broadcaster's only protection would depend on the terms of the contract between the broadcaster and the foreign user.

c. WIPO Broadcasting Treaty

In the last years, the World Intellectual Property Organization started to draft a new global broadcasting treaty (the so-called 'Webcasting Treaty') aiming at updating the rights of broadcasting organizations in response to technological developments and the growing use of information and communications networks. The current international legal framework was held inadequate in protecting broadcasting organizations. Most countries were subject to the TRIPS, but the TRIPS does not require members to provide "related rights" to broadcast organizations if they provide copyright owners the right to protect materials when broadcast.

The object has been under discussion in the *Standing Committee on Copyright and Related Rights* (SCCR) during twelve consecutive sessions, from 1998 to 2004. A revised version of the Consolidated Text for a Treaty on the Protection of Broadcasting Organizations (SCCR/12/2/Rev.2) was prepared for the twelfth session of the Committee in November 2004 in Geneva. Further, a Working Paper on alternative and non-mandatory solutions on protection in relation to webcasting (SCCR/12/5) was prepared.

The proposed treaty concerns a system of ownership for material transmitted over wireless means such as television, radio and satellite, as well as wired communications over cable networks, and also over Internet computer

networks. The proposal expands or gives new rights to transmitters of information, even if they are not the creators of that information.

The proponents of the treaty admit that it is necessary to update protections for broadcasters in the TRIPS accord and in the Rome Convention. However, it is been criticised that updating should not mean extending protection terms from 20 years (TRIPS and Rome Convention) to 50 years, extending the protection to many new technologies, and creating new rights.

The temporal extension of protection is considered not justifiable. It has been argued that the typical copyright justification of granting protection for a period of time comparable with a human life aims at rewarding the creativity of the author or of the performer.¹⁶⁰ This goal is not pursued in the case of broadcasting. Rights are granted to broadcasters for the financial efforts expended in gathering and arranging information, and organizing the broadcast's transmission. Others argue that the extension is only a matter of "fairness," since the WPPT provides a 50-year term.

d. National legislation

A distinction must be made between common law countries and Roman law countries. In common law countries (e.g. United Kingdom, Australia, South Africa) the broadcaster is normally granted a copyright in the broadcast itself whereas in Roman law countries (i.e. Germany, France, Italy), a broadcaster is only given a so-called 'neighbouring right'. The approach taken by Roman law countries is explained with reference to the lack of creative input by broadcasters compared to authors of literary, artistic, photographic works etc.

¹⁶⁰ Report on the Draft WIPO Broadcasting Treaty, by Shyamkrishna Balganes, Dev Gangjee, Tatyana Nikiforova, Tina Piper, found at <http://www.cptech.org/ip/wipo/bt/#WIPO> viewed on 3 October 2005

e. Germany

According to the German *Copyright Act (Urheberrechtsgesetz) of 1965 (2003)*¹⁶¹ broadcasting is one implementation of the copyright, i.e. to broadcast a work belongs to the extent of the copyright.

However, the Act does not acknowledge an original copyright for broadcasters even though broadcasting is one implementation of the copyright. Broadcasters “only” enjoy a so-called “neighbouring right” which is laid down in section 87 of the German Copyright Act. However, this right corresponds mostly with the copyright. The broadcasters’ right ceases after 50 days from first broadcasting. This duration of protection is the standard term within the European Union.

The right includes the exclusive right to

- 1. redirect the broadcast and to make available to the public;*
- 2. to record the broadcast on to picture carrier and sound storage medium, to produce photographs of the broadcast as well as to copy and distribute picture carrier and sound storage medium; the right to lease is not included;*
- 3. to make the broadcast available to the public at places which are only accessible by the public against payment of an entrance fee.*

In regard to webcasting, miscellaneous infringements are recognizable. First, it could constitute an infringement of the broadcaster’s right if the (traditional) broadcast were made available as a webcast in the Internet, therefore to the public, without the broadcaster’s consent. This would infringe with the right of making available to the public. Second, the webcaster’s right (if

¹⁶¹ <http://bundesrecht.juris.de/bundesrecht/urhg/> viewed on 5 August 2005

acknowledged under section 87 of the German Copyright Act) could be violated if content were being redirected to another website, for example. The term 'redirection' in regard to webcasting could be construed as making the complete webpage (webcast) available on a different IP address. It could also cover the case of piracy, where contents are captured directly from the over-the-air transmission between servers.

The main issue, however, is the question of the legality of recording streaming media.

Recording streaming media could constitute an infringement in terms of section 87 (1) 2 if it can be considered to be recording of a broadcast onto a sound storage medium. This will primarily depend on how the term 'broadcast' is defined. Does the term refer to the entire broadcast (consecutive programmes) or also to separate programmes? The Copyright Act itself does not define the term, but as discussed above, the definition of broadcasting in terms of the Broadcasting Treaty is broad enough to cover webcasting. The field of functions of broadcaster and webcaster is also comparable, as both require the arrangement of contents of programmes and the organization of their transmission. However, the decision has to be aligned to the nature of the right allocated to broadcasters. Broadcasters are given a neighbouring right, not a copyright, by which they are rewarded for the financial and temporal efforts made for the organization, realization and transmission of a broadcast. Broadcasters do mostly not produce the programmes that a broadcast consists of; broadcasters are rather 'refiners', than creative producers/ composers. Therefore, the term 'broadcast' must at least refer to a sequence of programmes, whereby the organisational activity is conducted (unless the broadcaster has self-produced programmes).

Making available to the public in terms of section 87 (1) 1 of the Copyright Act could be assumed to refer to when recorded (downloaded) material is put

onto P2P networks for exchange. 'Making available to the public' refers to section 19a of the Copyright Act. At first glance, it seems problematic that once the music files (for example) have been played on the radio, those are already made public. However, the term 'public' in section 19a is being construed differently, relating to the 'making available'. Data is made available to the public exactly though putting it onto a website, which is accessible to anyone (who can provide their own data in exchange). In the case of P2P networks, data is made available by allowing other users to access the data on your personal computer. Such action does also not fall within the ambit of fair use provisions. Section 53 of the Copyright Act requires that the recording was for personal (private) use only. Even though there are private people involved in exchanging music and without payment, it is still an exchange market ('goods for goods') and should therefore considered commercial, or at least non-private.

Additionally, a webcaster can claim protection for the separate parts of the website if he or she is the author of the separate parts. Such parts can include texts, sounds, pictures, etc. A protection for the website as a multimedia work has been acknowledged by German jurisdiction, but has not yet been expressly included into the Copyright Act. The protection of a multimedia work is being considered as the result of the protection of all the parts constituting the work and can also enjoy protection as 'collected edition' according to section 4 of the Copyright Act.

f. United Kingdom

Broadcasts are protected in section 6 of the Copyright, Designs and Patents Act of 1988¹⁶². It is interesting to notice that the definition of "broadcast" in

¹⁶² <http://www.ukincorp.co.uk/s-BG-9-copyright-designs-and-patents-act-1988.html> viewed on 3 October

section 6 refers to an electronic transmission and would therefore be broad enough to cover webcasting.

6 – Broadcasts

(1) In this Part a "broadcast" means an electronic transmission of visual images, sounds or other information which –

(a) is transmitted for simultaneous reception by members of the public and is capable of being lawfully received by them, or

(b) is transmitted at a time determined solely by the person making the transmission for presentation to members of the public, and which is not excepted by subsection (1A).

Subsection (1A) expressly refers to broadcasting by means of Internet transmission, but outlines that it only covers webcasting, if the transmission takes place simultaneously (to the broadcast), if the webcast transmits a live event, or if recorded moving images or sounds are transmitted as are part of programme service offered and scheduled by a person who is responsible for the transmission.

(1A) Excepted from the definition of "broadcast" is any Internet transmission unless it is –

(a) a transmission taking place simultaneously on the Internet and by other means,

(b) a concurrent transmission of a live event, or

(c) a transmission of recorded moving images or sounds forming part of a programme service offered by the person responsible for making the transmission, being a service in which programmes are transmitted at scheduled times determined by that person.

Section 6 (4) is relevant to the applicability of the Act. The Act only applies to webcasts, which are made within the United Kingdom. According to section 6

(4) this relates to the place where the content-carrying signals are sent out into the communication circle (i.e. server connection etc.). This relates to the above-mentioned EU Directive.

For the purposes of this Part, the place from which a wireless broadcast is made is the place where, under the control and responsibility of the person making the broadcast, the programme-carrying signals are introduced into an uninterrupted chain of communication (including, in the case of a satellite transmission, the chain leading to the satellite and down towards the earth).

As to section 14 subsection (2) of the Act, a copyright in a broadcast expires at the end of the period of 50 years from the end of the calendar year in which the broadcast was made, subject as follows. A copyright in a repeat broadcast expires at the same time as the original broadcast.

g. Netherlands

Broadcasts are regulated in the Neighbouring Rights Act of 1993¹⁶³. With this Act, the Netherlands is one of the rare countries, which has implemented a separate act for broadcasting in regard to copyright issues. As is typical for a Roman law country, the Netherlands qualifies the right of broadcasters as a neighbouring right, not as a real copyright. According to Article 8, a broadcasting organisation shall have the exclusive right to authorize one or more of the following acts:

a. the rebroadcasting of programmes;

b. the recording of programmes and the reproduction of such recordings;

¹⁶³ <http://www.ivir.nl/legislation/nl/nra.html> viewed on 10 October 2005

- c. the sale, rental, lending, supply or otherwise bringing into circulation, and the importing, offering or having in stock for such purposes, of a recording of a programme or a reproduction thereof;*
- d. the communication to the public of a programme, whatever the technical facilities used for that purpose;*
- e. the communication to the public of recordings of programmes or reproductions thereof, whatever the technical facilities used for that purpose.*

The Act expressly mentions the right to authorize the recording of programmes and the reproduction of such recordings. Such right is violated in the case of recording streaming media, but it does not constitute an infringement if the recording is carried out for the purpose of private practice, study, reporting in public, quotations etc. (section 10).

According to Article 12, the rights of broadcasting organisations expire 50 years after 1 January of the year following that in which a programme was first broadcasted.

h. South Africa

According to the South African Copyright Act of 1998¹⁶⁴, a broadcast means *“a cinematograph film of it or a copy of a cinematograph film of it or a sound recording of it or a record embodying a sound recording of it or a still photograph made there from.”*

As to section 2 (1) f of the Copyright Act, broadcasts are eligible for copyright if they are original.

¹⁶⁴

portal.unesco.org/culture/en/file_download.php/47f393caa633c1d051c87045ba9a2d26Copyright_Act_1978.pdf viewed on 3 October 2005

Copyright protection section 2 (1)

- (f) *broadcasts;*
- (g) *programme-carrying signals;*

This means broadcasters are granted an original copyright. The right to broadcast is included in all specified copyrights, such as the sound recordings (section 9) and cinematographic films (section 8). The nature of copyright in broadcasts is laid down in section 10.

10 - Nature of copyright in broadcasts

Copyright in a broadcast vests the exclusive right to do or to authorize the doing of any of the following acts in the Republic:

- (a) *Reproducing, directly or indirectly, the broadcast in any manner or form, including, in the case of a television broadcast, making a still photograph there from;*
- (b) *rebroadcasting the broadcast;*
- (c) *causing the broadcast to be transmitted in a diffusion service, unless such service is operated by the original broadcaster.*

The recording of streaming media could fall under reproducing the broadcast. Recording streaming media means to download the data onto a computer. Such downloading is being considered a non-physical reproduction. Such reproduction is again only admissible if for private study, research, for personal or private use, or for criticism or review (section 12). The exemption refers to literary and musical works, and would therefore cover web radio streaming.

However, this again raises the question of whether the recording of particular streams is considered to be a reproduction of the broadcast. What constitutes a broadcast? Is a broadcast only the entire programme or is one programme

enough? In my opinion, this has to be decided in relation to the nature of the right that is allocated to broadcasters as outlined previously.

Section 12 (7) of the Copyright Act provides that the copyright in a broadcast on any current economic, political or religious topic is not infringed by broadcasting it, if such broadcast has not been expressly reserved, and the source is clearly mentioned.

According to 3 (2) d (d) of the South African Copyright Act the copyright duration for broadcasts is also fifty years from the end of the year, in which the broadcast first takes place.

i. Australia

The Australian Copyright Act of 1868¹⁶⁵ grants a copyright in both television and sound broadcasts which is specified in section 87:

Section 87 - Nature of copyright in television broadcasts and sound broadcasts

For the purposes of this Act, unless the contrary intention appears, copyright, in relation to a television broadcast or sound broadcast, is the exclusive right:

- (a) in the case of a television broadcast in so far as it consists of visual images — to make a cinematograph film of the broadcast, or a copy of such a film;*
- (b) in the case of a sound broadcast, or of a television broadcast in so far as it consists of sounds — to make a sound recording of the broadcast, or a copy of such a sound recording; and*

¹⁶⁵[www.comlaw.gov.au/ComLaw/Legislation/ActCompilation1.nsf/0/01685EDD9DF221EECA2570280014691A/\\$file/Copyright1968.pdf](http://www.comlaw.gov.au/ComLaw/Legislation/ActCompilation1.nsf/0/01685EDD9DF221EECA2570280014691A/$file/Copyright1968.pdf) viewed on 3 October 2005

(c) in the case of a television broadcast or of a sound broadcast — to re-broadcast it or communicate it to the public otherwise than by broadcasting it.

Recording of web radio streaming would fall under (b) as it demonstrates a sound recording. When exchanging such recorded data on P2P networks the right of communicating the work to the public could be affected. The formulation “*communicate it to the public otherwise than by broadcasting it*” in section 87 (c) could be construed to cover webcasting as a form of communication to the public.

The extent of copyright for broadcasters has been subject to Supreme Court decision¹⁶⁶ where it was held that television broadcasts have the same level of protection under the Copyright Act as other copyright material with no further special protection. This means, as it is the case with other copyright material, that an infringement will only be assumed if a substantial part of a broadcast is concerned. Unfortunately, the court did not decide upon the question whether the discussed programme (show) is considered a broadcast. This has been left open to the Federal Court to determine.

j. Conclusion

Broadcasts either enjoy full copyright protection or a neighbouring right in the different national legislations and on the international level by the Rome Treaty. That means broadcasters can claim copyright infringement if programmes (or parts of those) are transmitted or re-transmitted without consent. A copyright protection for webcasts has, in general, not yet been recognized. However, the actions being undertaken on the international level to build up a WIPO Webcasting Treaty show that the arrival of webcasting is

¹⁶⁶ http://www.freehills.com.au/publications/publications_1183.asp viewed on 3 October 2005

perceived and that an international harmonization in regard to this matter is aimed at.

So far, webcasting will fall within the copyright (or neighbouring right) protection if the definition of broadcasting used in the national Copyright Acts or developed by the courts is broad enough to cover webcasting. As discussed above in regard to the regulatory issues, this is generally the case. Thus, as long as webcasting is not expressly entered into the Copyright Acts, it will have to be subsumed under broadcasting. As a result, webcasters can claim copyright infringements if someone transmits or re-transmits programmes or substantial parts of it, etc. Piracy of webcasts, which means the unauthorized taking of streams from the server and retransmitting them through the pirate's website, will then present a copyright infringement in terms of making available to the public without consent. It may also fall under the reproduction right as the "stolen" content is put onto a different server (uploading), which constitutes an immaterial copy (as opposed to the general physical copy).

The duration of protection for broadcasters is mostly 50 years no matter of the nature of right. The Rome treaty only grants a 20-year-period of protection. When the WIPO Webcasting Treaty is introduced, the protection duration will most likely be extended from 20 to 50 years, which are a big step and an unreasonably long protection period. The extension is not comprehensible especially in comparison to the protection given to works, which bear on the activity of a creative mind. Predominantly, broadcasters do not undertake creative or inventive actions, but plan and organize the broadcasting. With the rights allocated to them they are rewarded for the efforts expended in arranging material, information etc. and organizing the transmission of the broadcasts. Therefore, the duration of protection should adjust to the investment for the broadcast. Protection should be granted for the period necessary to recoup the costs of such investment. The extension of protection

for broadcasters beyond that time will unjustifiably hinder the interests of the public in unhindered access to information.

Additionally, webcasters can claim protection for the separate part that the website consist of, e.g. text, sound, pictures etc. Some legislation or jurisdiction also recognize a copyright for the whole website as multimedia work.

4. Which rights to be obtained for webcasting

Separate from the question of a copyright for broadcasters is the issue of what rights broadcasters need to obtain in order to comply with Copyright provisions.

a. Case study

Interview with Kai Thaesler, n-tv, September 2002

The German news channel n-tv is a news medium, a “refiner” rather than a “creator”. That means most of the information and material is not self-recorded or self-produced but bought from news agencies such as *dpa* (Deutsche Presseagentur)¹⁶⁷, *Reuters*¹⁶⁸, *ap* etc. Agencies either provide moving pictures or picture and text material. The buying of such “feed” is based on contracts, which will not only determine the price and conditions of delivery, but also the concession of rights. Since the introduction of webcasting, a new right has been recognized/ acknowledged, namely the right to put the purchased text or picture material online. The news channel n-tv webcasts its whole TV programme live. For that n-tv buys the rights for web. The sports parts are not shown (simulcasted) due to a

¹⁶⁷ www.dpa.de

¹⁶⁸ www.reuters.de

lack of rights. The purchased rights are included in the contract (as a “right package”) and influence the package price only marginally. Mostly, the rights for web and mobile are agreed upon together, as there is a great demand on sms services to mobile phones, as well.

Some programmes have been also made available on-demand. However, the demand is not as high (less than 20%) as to justify the costs, which are combined and caused by making already broadcasted programmes available in the Internet (administration costs) even though it might be desirable from a journalistic point of view. Especially with a news medium such as n-tv the “up-to-date-ness” of information is an important factor. Thus, the demand for past news is moderate.

To play music in the background of own productions will need registration with the main collecting societies GEMA¹⁶⁹ and GVL¹⁷⁰. GEMA has already introduced a royalty system for music being played in the Internet.

b. Rights overview

Rights to be obtained for broadcasting refer to the copyright-protected works that are used in a broadcast, such as music works, photographs, films, etc. Such works enjoy the complete range of copyright. According to the *Berne Convention*, a copyright holder holds five exclusive rights: reproduction, distribution, public performance, and creation of derivatives and display of their work.

¹⁶⁹ GEMA is the German "Gesellschaft für musikalische Aufführungs- und mechanische Vervielfältigungsrechte" or society for musical performing and mechanical reproduction rights. As a state-recognised trustee organisation, they administer the exploitation rights of creators of music.

¹⁷⁰ GVL is the German Gesellschaft zur Verwertung von Leistungsschutzrechten, administering the neighbouring rights.

In some legislations, there are additional rights such as: the right to broadcast, the right of re-transmission through cable (cable retransmission right), the right of making available to the public and new rights which result from the impact of new technologies. In the case of media, a whole set of other rights appear: cable rights, satellite rights, terrestrial rights, analogue rights, digital rights, Free-TV rights, Pay-TV rights, Pay-per-View rights, Video-on-Demand rights, Near-Video-on-Demand rights and Internet rights. All these rights are finally only different means of using a copyright. They are specifications of the copyright. In Art. 11bis the Convention also recognized the right of broadcast.

With regard to webcasting, the question is whether (only) the right to broadcast needs to be obtained or whether there is a special right for webcasting. Therefore, it will be necessary to distinguish between the types of webcasting services as given above (i.e. simulcasts, video on demand, independent webcasting channels).

c. Simulcasts

Since webcasting is broadcasting by means of the Internet, but the contents and purpose are the same or similar, it can be argued that the *broadcasting right* has to be obtained to provide webcasting services, e.g. to webcast copyright-protected works. This would be justifiable with the definitions of broadcasting given above as they mostly refer to the same kind of distribution means.

In Germany, for instance, the right to broadcast is defined in section 20 of the Copyright Act *as the right to make a work available to the public by means of radio transmission such as sound and television communication, satellite communication, cable communication or similar technical means.*

To subsume webcasting under the right to broadcast is especially appropriate with (live) simulcasts as those are most equivalent to traditional broadcasts; they only differ in the format of how data is distributed (analogue or digital). Both simulcasts and traditional broadcasts are transmitted at a certain time and can only be accessed then. That underlines the characteristic of broadcasting to be independent from the potential user's (receiver's) will. The programme that is shown or transmitted is assembled by the broadcaster or the broadcasting organization. The distribution format does not matter.

In Germany, simulcasts are predominantly regarded as being covered by the broadcasting right, but they do not create a separate method of use within the broadcasting right. There is also the cable-retransmission right of section 20b of the German Copyright Act which comes into play. In fact, both the broadcasting right (section 20 Act) and the cable re-transmission (section 20b of the German Copyright Act) right collide.

The right of cable re-transmission is defined in section 20b of the German Copyright Act (introduced in 2003) as the *right to re-transmit a broadcasted programme simultaneously, unaltered and unabridged by cable or microwave system*.

The cable re-transmission right is technology neutral. It has been designed to capture the secondary exploitation of the broadcasting right.

d. Video on demand

In contrast to simulcasts, with video on demand certain content data is made available to the public through the Internet and people can access it at any time they want to. Whereas the right to broadcast refers to a transmission that can only be accessed at a certain time and is therefore autonomous from the user's will, on-demand services relates to the user's wishes. Therefore, it will

be rather covered by the right of making available to the public, as it is more suitable. The right of making available to the public has been introduced in many European countries due to the European Directive on the harmonization of certain aspects of copyright and related rights in the information society of 2001¹⁷¹. Since the European member states are obliged to implement the regulations of the EU Directive, the right of making available to the public can be expected to be covered.

In Germany, the “new” right has been implemented by section 19a of the Copyright Act.

The right of making available to the public is defined in section 19a of the German Copyright Law itself as *the right to make a work available to the public by means of wire or wireless in a way that it is available to members of the public at any place and at any time of their choice*.

Section 19a gives a broad definition and can therefore be construed as covering basically any form of on-demand electronic data.

5. How to obtain the rights

A separate licence grant is needed for each form of copyright. Such permission is given by contractual agreements with the copyright owner itself or collecting societies.

In case there is no express agreement between the licensor (copyright author) and the licensee (broadcaster) about which methods of use are granted, the contract will be interpreted in terms of section 31 subsection 5 of the German

¹⁷¹

http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=EN&numdoc=32001L0029&model=guichett viewed on 10 October 2005

Urheberrechtsgesetz (Copyright Act). The parameter for interpretation is above all the purpose and object of the contract (so called *Zweckübertragungslehre*).

That means, if a contract is silent on the method of use, the purpose of the contract as agreed by both parties will be used to determine the scope of the licence. For instance, a licence granting a Free-TV right (i.e. the movie can be broadcasted on non-subscription TV) does not give the right to distribute the programme against payment of a fee. This would be against the obvious contractual purpose. Another example is that it can be assumed that the licensor of a journalistic article did not automatically grant the right to make the work available to the public (online) if the licensee is a regular newspaper in the first place and only offers online services additionally.

In many contracts in the field of media copyright though, it is common for broadcasters to “buy” right packages including both broadcasting and online rights (web and mobile phone).

6. Royalty payment system

Royalty payments for webcasting have been introduced only concerning audio webcasting (e.g. in the United States, Germany, Austria etc.) by which webcasters (online radio stations) have to pay for playing music.

a. United States

In the United States, a system of royalties for webcasting has been introduced by the amendment of the Copyright Act through the Digital Millennium Copyright Act in 1998 (DMCA)¹⁷². Webcasters have to pay royalties to

¹⁷² <http://www.copyright.gov/legislation/dmca.pdf> viewed 3 October 2005

record companies for the sound recordings that they make available over the web.

Historically radio stations had to pay royalties only to songwriters and composers, through associations as ASCAP¹⁷³, BMI¹⁷⁴, and SESAC¹⁷⁵, since there was no public performance right in sound recordings for broadcast radio in the United States until 1995¹⁷⁶. In 1995, the Digital Performance Right in Sound Recordings Act (DPRA) added a digital audio transmission performance right, but also a statutory licence. A statutory license (or compulsory) license is an exception to copyright provided by law to use a copyrighted work without the explicit permission of the owner.¹⁷⁷ However, the DPRA only referred to broadcast transmissions made by FCC-licensed terrestrial broadcast stations. Digital transmissions over the Internet do not fall within the categories addressed in the DPRA. Section 405 of the DMCA amended the DPRA, expanding the statutory licence for subscription transmissions to include webcasting as a new category of “eligible non-subscription transmissions.”

To obtain such a licence, webcasters and their sound recordings or other webcasts must meet certain restrictions set forth in the Copyright Act. The rates depend on how many people will be listening to the music, and how much money will be made off of that music, in subscription fees, advertising, etc. To qualify for licence, webcasters have to follow certain rules according to which the webcast is classified as an “Eligible Non-subscription

¹⁷³ American Society of Composers, Authors and Publishers, www.ascap.com

¹⁷⁴ Broadcast Music Inc., www.bmi.com; BMI created innovative new ways to manage copyrights for the digital world including the Digital Licensing Center, the first end to end automated online licensing system, and an automated music use reporting and digital fee payment systems.

¹⁷⁵ Society of European Stage Authors and Composers, www.sesac.com

¹⁷⁶ http://www.grammy.com/pe_wing/advocacy/producerarticle.aspx viewed 3 October 2005

¹⁷⁷ http://en.wikipedia.org/wiki/Statutory_license viewed 3 October 2005

Transmission” (ENT)¹⁷⁸. The rules to qualify as an ENT (only for webcasts) are as follows:

- The webcast is not limited to particular users who pay for it (“non-subscription”)
- The user must not be able to choose and receive a particular recording (no on demand, no interactivity).
- In a three-hour period, a webcaster is not permitted to play more than three tracks from a given album, and no more than two consecutively.
- In a three-hour period, a webcaster is not permitted to play more than four tracks by a given artist, and no more than three consecutively.
- If the webcast is archived, the archive must be at least five hours long, and must not be made available for more than two weeks. The idea is to make it difficult for users to scan through the webcast to pick out and save individual songs.
- If the webcast repeats itself (plays in a loop) then the loop must be at least three hours long.
- The webcast must not publish prior announcements of the songs: webcasters are not allowed to let the users know what songs are coming up next. Webcasters must not publish their play lists ahead of time.
- The webcaster must identify the song title, album title, and the featured artist in text during the performance of the song.

¹⁷⁸ <http://www.copyright.gov/fedreg/2004/69fr11515.pdf> viewed on 5 October 2005

- A webcaster must not "encourage" users to copy or record the music that the webcaster is playing, and the webcaster must "disable copying by users if in possession of technology capable of doing so."

Payment of royalties has to be made to the Recording Industry Association of America (RIAA)¹⁷⁹, or to SoundExchange, a division of the RIAA, which will distribute the money to the copyright holders of the recordings (the record labels). Webcasters have to pay RIAA even if they only play music by non-RIAA artists.

The Congress did only establish how royalties must be allocated, but did not legislate the royalty rate webcasters of sound recordings would have to pay, leaving that rate to be established by a Copyright Arbitration Royalty Panel (CARP)¹⁸⁰. In 2002, the CARP established the following rates and terms for the statutory licence for eligible non-subscription services to perform sound recordings publicly by means of digital audio transmissions (webcasting) under section 17 U.S. Code section 114 and to make ephemeral recordings of sound recordings for use of sound recordings under the statutory license set forth in 17 U.S. Code section 112.¹⁸¹ Neither side liked the first proposal very much. The webcasters said the rates were insanely high, and would put much all small webcasters out of business over night; the RIAA says the rates were still way too low.

Whereas the first proposal split up the fees for terrestrial radio stations (0.07 cents per performance) and Internet-only webcasting (0.14 cents per performance), the final ruling by the CARP mandates that all webcasters must

¹⁷⁹ www.riaa.com - Recording industry association of America.

¹⁸⁰ <http://www.copyright.gov/carp/>

¹⁸¹ http://www.copyright.gov/carp/webcasting_rates.html viewed on 10 October 2005

pay 0.07 cents per-song, per-listener, retroactive for the period of October 28, 1998 to December 31, 2002.

This does not sound much but, in counting the number of songs heard by listeners, any connection, no matter how short, is counted: webcasters pay for a whole song even if someone only listens for five seconds before changing the channel. This makes the CARP rates far more expensive than estimated.

On top of the royalty fee, webcasters have to pay another 8.8% as an 'Ephemeral Licence Fee' for the music that is stored in hard drives or buffers that aid in the delivery and process of the streams.

The new rules also included reporting requirements in order to finalize the fee. Some of the requirements seem impossible and non-practicable to provide, e.g. the requirement of a "unique user identifier" for each listener and the UPC code from the CD the song came from.

The complete list of information that the RIAA demands be reported:

- A. The name of the service;*
- B. The channel of the program (AM/FM stations use station ID);*
- C. The type of program (archived/looped/live);*
- D. Date of transmission;*
- E. Time of transmission;*
- F. Time zone of origination of transmission;*
- G. Numeric designation of the place of the sound recording within the program;*
- H. Duration of transmission (to nearest second);*
- I. Sound recording title;*
- J. The ISRC (International Standard Recording) code of the recording;*

- K. The release year of the album per copyright notice and in the case of compilation albums, the release year of the album and copyright date of the track;*
- L. Featured recording artist;*
- M. Retail album title;*
- N. The recording label;*
- O. The UPC (Universal product) code of the retail album;*
- P. The catalogue number;*
- Q. The copyright owner information;*
- R. The musical genre of the channel or program (station format);*

In addition, webcasters must report information on the listening audience, as well:

- 1. The name of the service or entity;*
- 2. The channel or program;*
- 3. The date and time that the user logged in (the user's time zone);*
- 4. The date and time that the user logged out (the user's time zone);*
- 5. The time zone where the signal was received (user);*
- 6. Unique user identifier;*
- 7. The country in which the user received the transmissions.*

The CARP royalty payment system for audio webcasting has caused a huge dispute and has been heavily criticized.¹⁸² From the webcasters' side it has been argued that the existing system would legislate webcasting out of existence. As a reason for that it has been put forward that webcasting would in the way of progress toward a completely pay-per-view economy.

¹⁸² www.internetnews.com viewed on 24 October 2005

While it was agreed that reporting the songs that are played is important in order to allot the fees to the proper artist, the requirements were found unfair for smaller webcasts. It has been discussed whether the principle of fair use should be applied. Another critique referred to the retroactivity of the regulations. In 2002, three U.S. Congressmen¹⁸³ proposed the *Internet Radio Fairness Act*, a law, which sought to change existing web radio laws and to protect smaller webcasters from what they describe as unfair royalty obligations.¹⁸⁴ The idea was to codify "fair use" provisions of copyright law. The bill is designed to make the Copyright Arbitration Royalty Process (CARP) "more fair for smaller entities."

Highlights of the "Internet Radio Fairness Act" included:

- Small businesses (six million dollars in gross revenue) will be exempted from the CARP fees for web radio. The royalty ruling, which was accepted by the Library of Congress, would stand for larger web radio providers.
- All future CARP processes must change the royalty rate standard from the "willing-buyer/willing-seller" to the "traditional" standard that was enacted by the 1976 Copyright Act. Royalty payments for the small businesses that have been exempted from the current CARP decision will be calculated using the traditional standard, and rolled into the next CARP.
- Small businesses will be exempted from the payment requirement for participation in future CARP proceedings. During the most recent

¹⁸³ Rep. Inslee, Rep. Nethercutt and Rep. Boucher.

¹⁸⁴ July 26, 2002, Web Radio Law Changes Introduced, By Ryan Naraine

arbitration process, all participants were forced to pay an equal share of the total costs, forcing many small businesses out of the process.

- All future CARPs must eliminate fees for temporary recordings ("ephemeral recordings") that web radio broadcasters create to facilitate the transmission of the song to users. "The Registrar of Copyrights has determined that these temporary recordings have no independent economic value, and should not be subject to a separate royalty payment," the Congressmen argued. Broadcasters should not be charged for temporary storage files that listeners never hear and which are not saved.
- All future CARPS must comply with the Regulatory Flexibility Act. This will require CARPs to specifically consider the impact of any decisions on small businesses.

As a result, the *Small Webcasters Settlement Act of 2002*¹⁸⁵ was introduced, which amends title 17 of the U.S. Code with respect to the statutory licence for webcasting set forth in the DMCA. The main provision is section 3, suspending payments under Title 17 section 112 (making of ephemeral phonorecords) and 114 (digital performance of sound recordings) for both non-commercial and small commercial webcasters. Section 6 recognizes that parties may voluntarily negotiate agreements and make direct payments to the artists. Further-going provisions as proposed in the Internet Fairness Bill have not been adopted.

b. Germany

¹⁸⁵ <http://www.copyright.gov/legislation/pl107-321.pdf> viewed on 2 October

Although a broadcasting licence for webcasting is not necessary for German webcasters, webcasting is not legally permissible without the consent of the copyright owners. That means anyone who carries out webcasting has to get permission from the copyright owners for the copyright-protected works included in the webcasts.

In the case of webcasting of music, mostly by web radios, webcasters have to pay a special compensation. The fees have to be paid to the collecting societies, GEMA¹⁸⁶ and GVL¹⁸⁷. The GEMA covers the music copyrights of composers, songwriters, and their publishers. The GVL is responsible for the ancillary rights of interpreters and of the sound storage medium industry.

Compensation has to be paid by the webcasters whether there are only one or a thousand listeners. However, the amount of the contribution will relate to the potential amount of listeners at one time.

If a web radio (or any other webcaster in the case of music webcasts) did not obtain a licence with GEMA and/ or GVL, a tough punishment can be expected. Copyright owners can claim for omission and damages, and even a reminder from a lawyer to stop broadcasting without a licence can be expensive. Copyright owners can also initiate a criminal prosecution, which can result in a fine or imprisonment up to 3 years in case of non-commercial radio, otherwise up to 5 years. However, there has not yet been any case in which such punishment has been given.

This has been heavily criticised as being a major obstacle for even commercial web streaming in the future. It is said that Germany follows the United States with its compensation structure, which has not been successful.

GEMA

¹⁸⁶ GEMA - Gesellschaft für musikalische Aufführungs- und mechanische Vervielfältigungsrechte

¹⁸⁷ GVL - Gesellschaft zur Verwertung von Leistungsschutzrechten mbH

The minimum compensation per month refers to the simultaneous technical reception in the Internet. The minimum compensation is:

Up to (...) simultaneous receivers	Costs in Euro
25	25
50	50
100	100
250	200
500	400
1.000	800
10.000	1.600
Over 10.000	3.000

The compensation is only applicable for music streaming in form of a programme, and not sound files, which are offered for download on the Internet. Simulcast and unaltered transmission of terrestrial radio programmes and the transmission of separate events are exempted. Thus, radios, which additionally webcast their entire programme in the Internet, do not have to pay twice.

GVL

A huge debate started when the GVL introduced its new webcasting tariff in 2005, by which royalty fees are raised and terms of use aggravated. Webcasters can choose either to pay €0,00015 per minute and listener from Germany or to pay a minimum compensation of € 500,00 per year and channel. Commercial webcasters will have to pay € 1.500,00 per year and channel in the case of revenues up to € 50.000,00 per year. There is an additional payment for the reproduction that is being conducted in order to transmit the webcasts. Such payment is €0,125 per song title and year.

The new terms of use are adjusted to the U.S. system, including:¹⁸⁸

1. The webcaster must not provide any preview of the programming.
2. The webcaster may not transmit more than 3 different titles of one album within 3 hours, and not more than 2 consecutively. The webcaster may not transmit more than 4 different titles of one artist consecutively.
3. The webcaster may not use the sound recordings for commercial (advertising) purposes.
4. Webcasters have to provide existing and effective technological measure in order to impede that the sound records are copied or filtered.
5. Webcasters must support such technological measures, which are used by sound storage medium producers in order to identify and protect their records.

7. Legality of recording music

As discussed briefly above, recording of web streams constitutes a reproduction in terms of copyright law. The reproduction is of a non-material nature, as there is no physical copy, but such recording will normally not be possible when opening a webcast through a Windows Media player or other media player. Such media players do not have the function to save the file onto the computer, i.e. to download it. This can be understood as a form of copy protection against the limitless copying of music data and movies. However, as outlined above, there is software, which allows users to directly record music that is webcasted through the Internet. As most countries provide for a fair use in terms of reproduction for personal and private use, such

¹⁸⁸ <http://www.gvl.de/pdf/nutzungsbedingungen.pdf> viewed on 3 October 2005

records would be exempted from a copyright infringement if only used privately.

a. Germany

In the case of Germany, recording programmes from web radio does not violate any law at present if the copies are made for personal use only (according to section 53 of the German Copyright Act). Whether duplication is covered by the term ‘personal use’ is not legally decided yet. In 1978, the German Supreme Court (Bundesgerichtshof)¹⁸⁹ held that seven copies can be regarded as within personal use.

According to the last Amendment in 2003 to the Copyright Act, the recording and saving of audio and video data (including records from web radios) is only prohibited if one avoids an existing copy protection (section 95a). That means if a web stream is copy protected and one avoids such protection by means of software programmes, it not only constitutes a violation of section 95a of the German Copyright Act (if the requirements are met), but also results in the prohibition of any utilization of such illegal copy, laid down in section 96 of the Copyright Act. As a result, making such copies available on P2P networks would contravene the prohibition. Vice versa, it means that as long as there is no such copy protection any music files recorded from a web radio can be duplicated, archived on a MP3-player or CD-burner provided the legal requirements of the Copyright Act are met.

b. Europe

¹⁸⁹ BGH GRUR 1978, 474, 476.

The anti-circumvention regulations implemented in the German Copyright Act in 2003 are based upon the European Directive 2001/29/EC on the harmonization of certain aspects of copyright and related rights in the information society¹⁹⁰. Due to this Directive the legislation within Europe is more or less equivalent.

The directive states in article 6, 'Obligations as to technological measures':

- 1. Member States shall provide adequate legal protection against the circumvention of any effective technological measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that he or she is pursuing that objective.*
- 2. Member States shall provide adequate legal protection against the manufacture, import, distribution, sale, rental, advertisement for sale or rental, or possession for commercial purposes of devices, products or components or the provision of services which:*
 - (a) are promoted, advertised or marketed for the purpose of circumvention of, or*
 - (b) have only a limited commercially significant purpose or use other than to circumvent,**or*
 - © are primarily designed, produced, adapted or performed for the purpose of enabling or facilitating the circumvention of, any effective technological measures.*
- 3. For the purposes of this Directive, the expression 'technological measures' means any technology, device or component that, in the normal course of its operation, is designed to prevent or restrict acts, in respect of works or other subject matter, which are not authorized by the right holder of any copyright or any right related to copyright as provided for by law or the sui generis right provided for in Chapter III of Directive 96/9/EC. Technological measures shall be deemed 'effective' where the use of a*

¹⁹⁰ <http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ.do?uri=CELEX:32001L0029:EN:HTML>

protected work or other subject matter is controlled by the right holders through application of an access control or protection process, such as encryption, scrambling or other transformation of the work or other subject-matter or a copy control mechanism, which achieves the protection objective.

c. United States

The recording of web streams represents a reproduction in terms of the U.S. Code. Section 107 of Title 17 U.S. Code lays down the limitations on exclusive rights, i.e. the reproduction of streams does not present a breach of copyright if it is for the purposes of criticism, comment, news reporting, teaching, scholarship, or research, and so on.

The United States has also implemented anti-circumvention legislation by section 1201 of the Digital Millennium Copyright Act. Section 1201 (a)(1)(A) of the DMCA states that “*No person shall circumvent a technological measure that effectively controls access to a work protected under this title.*” With that, the regulation goes further than the German Copyright Act. It also covers people who knowingly use software to crack the copy protection, not only producing or selling it. In order to provide an effective protection against circumvention measurements this is favorable. Thus, the record put onto a P2P network would not only be illegal in terms of the Copyright law, but also the person exchanging such records would be subject to civil liability according to section 1203 U.S. Code.

D. Conclusion

Webcasting services will take the place of many traditional forms of media broadcasting in the future. This development is being recognized on a national and international basis, but so far no complete international framework has been implemented to regulate the legal issues that webcasting will bring about. It will be the task of international bodies to meet the challenges of regulating the webcasting technologies.

It can be safely stated that current national broadcasting legislation is not appropriate to sufficiently deal with the phenomenon of webcasting. Even though there are content regulations that should be applied to webcasting as well, it is desirable to build up a separate framework for webcasting. As webcasting is a service on the Internet, it would be better dealt with by formulating international regulations, rather than each country applying different standards.

There is no need for a complicated licence structure. Webcasting should not be eliminated by strict legislation and licence requirements should be drawn up with a view to the huge opportunities it gives to local and community-based services. Legislation should focus on useful and necessary restrictions in order to encourage quality, consumer protection and the protection of minors etc. This is one of the points that suggests that a registration requirement, rather than a licence requirement, would be more suitable.

Although content on the Internet is largely unregulated, webcasting should be seen as more similar to traditional media, where regulation is seen as necessary. In other words, the content of this new media form should be taken into account, rather than the way in which it is received by users.

As outlined, legislation will not be the right answer in all respects, especially due to enforcement problems. Therefore, a system of best-practice and industry codes should be put in place. These would have to be flexible enough to adapt to developing technology,

which is why legislation would not be suitable. Industry codes can be changed more easily and more speedily, and are more responsive than legislation.

The issues surrounding the copyright law are quite difficult and delicate. The main problem is the introduction of royalties, which could restrict the activity of webcasting completely. On the other hand, restrictions are needed in order to avoid the limitless exchange of sound or video data to the detriment of authors of copyright-protected works. Hard restrictions show that it is difficult to find a compromising solution with which both sides, webcasters and music record companies, are satisfied.

From my point of view, the most important issue to deal with in relation to copyright is the recording of web streaming. Without doubt, the solution cannot only be reached through the implementation of technological measures. As discussed, such measures will mostly be of only a deterrent nature, aimed at those who are not familiar with the different techniques of avoidance. Otherwise, it will always be technically possible to decode what has been encoded etc., and therefore to avoid any copy protection that would be introduced. The route to follow is to lay down legal consequences for the circumvention of such technological barriers. Such anti-circumvention legislation has been introduced in most European countries due to the European Directive and other countries.

Finally, the implementation of royalties to cover webcasting services will have to be adjusted to match the economic value and purpose of such services. Small webcasters need to be taken into account, for example by means of exemptions.

Until specifically addressed by means of regulation, webcasting will remain within the broad legal grey zone of the Internet, supplemented by the contorted application of national broadcasting legislation.

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www.live356.com – Internet Radio software etc.

www.kazaa.com – Music downloads

www.shoutcast.com – Streaming media software

www.napster.com – Music downloads

www.applian.com – Streaming media recording software

www.ofcom.org.uk – Office of Communications, UK

www.isoc.org.za - Internet Society, South Africa

www.aba.gov.au – Australian Broadcasting Authority

www.iwf.org.uk - Internet Watch Foundation

www.gema.de – German collecting society for musical authors

www.gvl.de – German collecting society